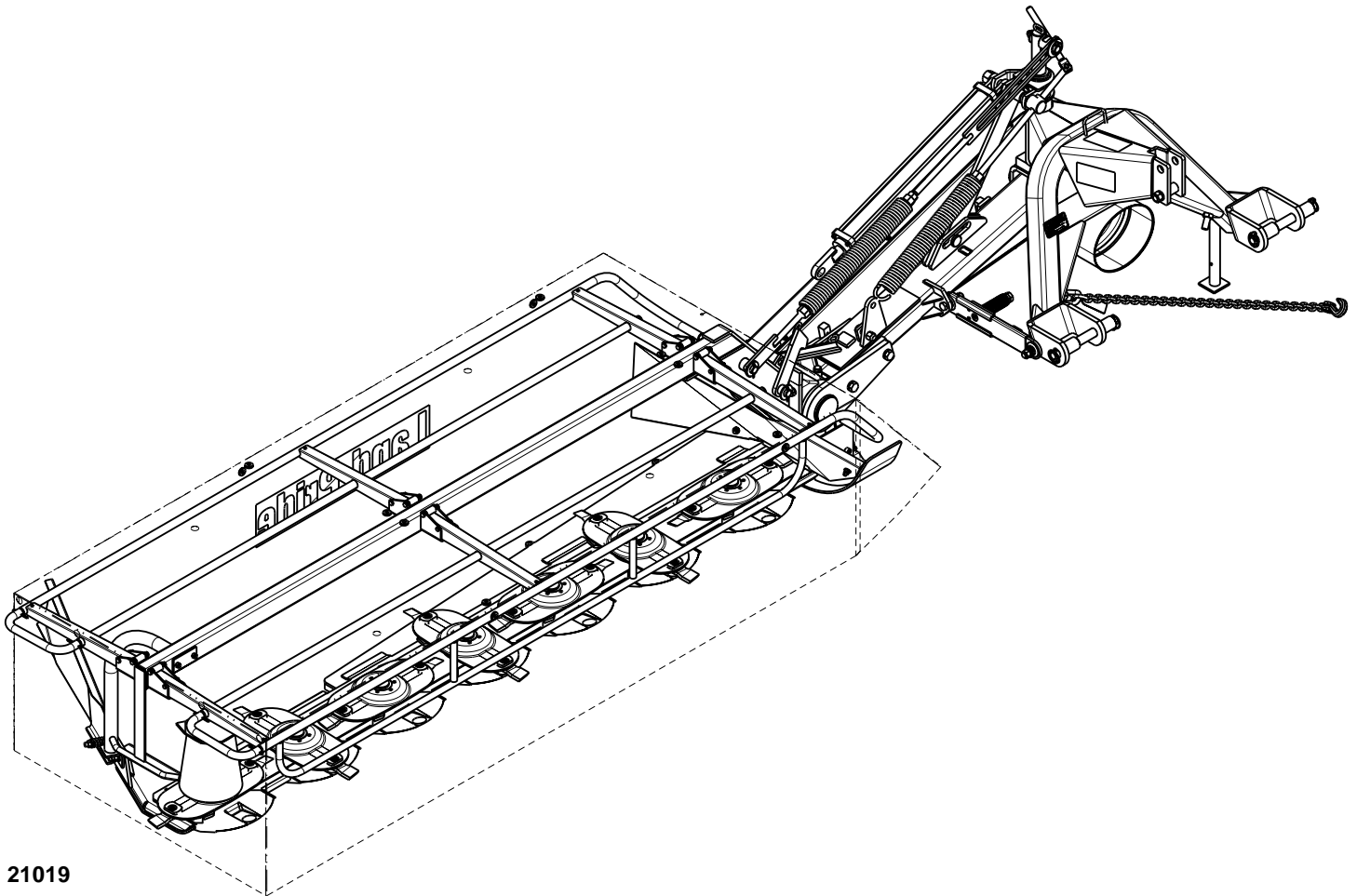


Disc Mowers

DM3705, DM3706, and DM3707 Series



21019

327-083M Operator's Manual



Read the Operator's manual entirely. When you see this symbol, the subsequent instructions and warnings are serious - follow without exception. Your life and the lives of others depend on it!



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Cover photo may show optional equipment not supplied with standard unit.

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Printed in the United States of America.

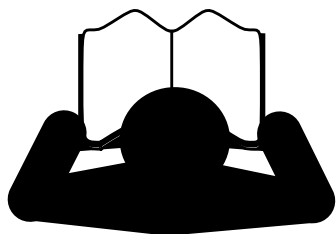
These are common practices that may or may not be applicable to the products described in this manual.

Safety at All Times

Thoroughly read and understand the instructions given in this manual before operation. Refer to the "Safety Label" section, read all instructions noted on them.

Do not allow anyone to operate this equipment who has not fully read and comprehended this manual and who has not been properly trained in the safe operation of the equipment.

- ▲ Operator should be familiar with all functions of the unit.
- ▲ Operate implement from the driver's seat only.
- ▲ Make sure all guards and shields are in place and secured before operating the implement.
- ▲ Do not leave tractor or implement unattended with engine running.
- ▲ Dismounting from a moving tractor could cause serious injury or death.
- ▲ Do not stand between the tractor and implement during hitching.
- ▲ Keep hands, feet, and clothing away from power-driven parts.
- ▲ Wear snug fitting clothing to avoid entanglement with moving parts.
- ▲ Turning tractor too tight may cause implement to ride up on wheels. This could result in injury or equipment damage.



Look For The Safety Alert Symbol

The SAFETY ALERT SYMBOL indicates there is a potential hazard to personal safety involved and extra safety precaution must be taken. When you see this symbol, be alert and carefully read the message that follows it. In addition to design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training of personnel involved in the operation, transport, maintenance and storage of equipment.

Be Aware of Signal Words

A Signal word designates a degree or level of hazard seriousness. The signal words are:

DANGER

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. This signal word is limited to the most extreme situations, typically for machine components that, for functional purposes, cannot be

WARNING

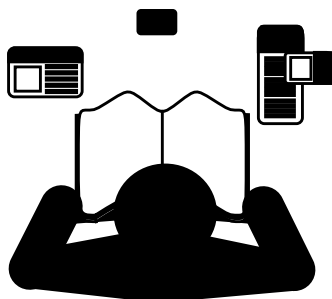
Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.

CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

For Your Protection

- ▲ Thoroughly read and understand the "Safety Label" section, read all instructions noted on them.



Shutdown and Storage

- ▲ Lower machine to ground, put tractor in park, turn off engine, and remove the key.
- ▲ Detach and store implements in a area where children normally do not play. Secure implement by using blocks and supports.

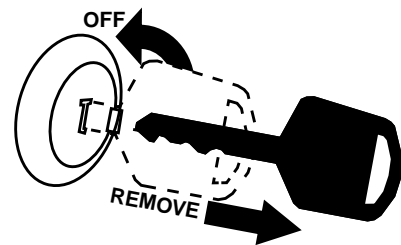


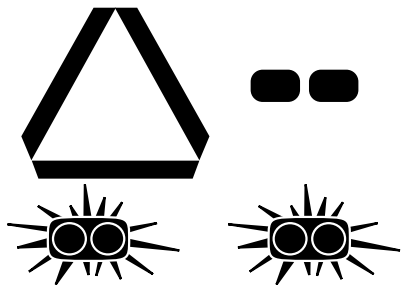
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Important Safety Information

These are common practices that may or may not be applicable to the products described in this manual.

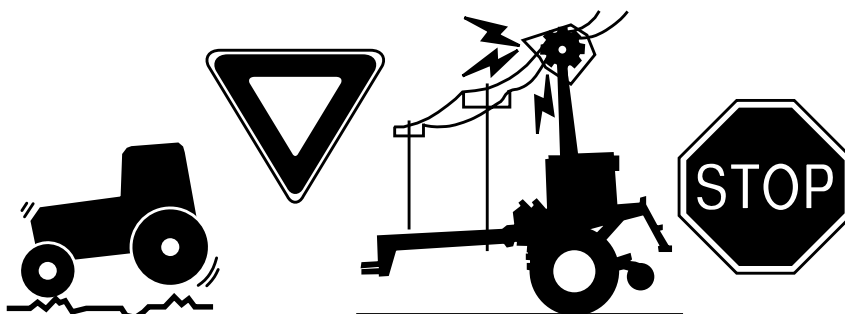
Use Safety Lights and Devices

- ▲ Slow moving tractors, self-propelled equipment, and towed implements can create a hazard when driven on public roads. They are difficult to see, especially at night.
- ▲ Flashing warning lights and turn signals are recommended whenever driving on public roads.



Transport Machinery Safely

- ▲ Comply with state and local laws.
- ▲ Maximum transport speed for implement is 20 mph. DO NOT EXCEED. Never travel at a speed which does not allow adequate control of steering and stopping. Some rough terrain require a slower speed.
- ▲ Sudden braking can cause a towed load to swerve and upset. Reduce speed if towed load is not equipped with brakes.



- ▲ Use the following maximum speed - tow load weight ratios as a guideline:
- ▲ **20 mph** when weight is less than or equal to the weight of tractor.
- ▲ **10 mph** when weight is double the weight of tractor.
- ▲ **IMPORTANT:** Do not tow a load that is more than double the weight of tractor.

Practice Safe Maintenance

- ▲ Understand procedure before doing work. Use proper tools and equipment, refer to Operator's Manual for additional information.
- ▲ Work in a clean dry area.
- ▲ Lower the implement to the ground, put tractor in park, turn off engine, and remove key before performing maintenance.

- ▲ Allow implement to cool completely.
- ▲ Do not grease or oil implement while it is in operation.
- ▲ Inspect all parts. Make sure parts are in good condition & installed properly.
- ▲ Remove buildup of grease, oil or debris.
- ▲ Remove all tools and unused parts from implement before operation.



Tractors With Cabs or ROPS

- ▲ There should be sufficient clearance for the operator when mounted to a tractor with a cab or that is equipped with ROPS.
- ▲ The ROPS may need to be extended or flipped around to obtain sufficient clearance.

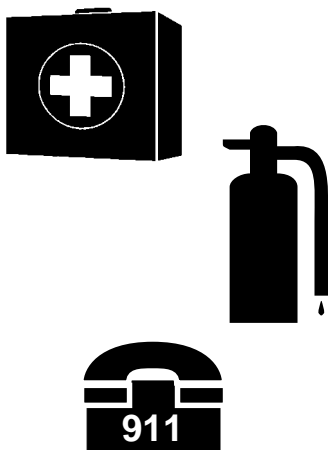


Important Safety Information

These are common practices that may or may not be applicable to the products described in this manual.

Prepare for Emergencies

- ▲ Be prepared if a fire starts.
- ▲ Keep a first aid kit and fire extinguisher handy.
- ▲ Keep emergency numbers for doctor, ambulance, hospital and fire department near phone.



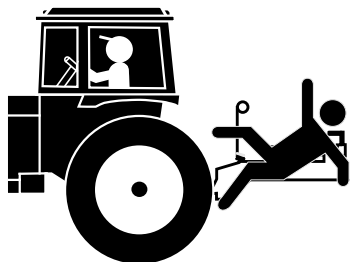
Wear Protective Equipment

- ▲ Protective clothing and equipment should be worn.
- ▲ Wear clothing and equipment appropriate for the job. Avoid loose fitting clothing.
- ▲ Prolonged exposure to loud noise can cause hearing impairment or hearing loss. Wear suitable hearing protection such as earmuffs or earplugs.
- ▲ Operating equipment safely requires the full attention of the operator. Avoid wearing radio headphones while operating machinery.



Keep Riders Off Machinery

- ▲ Riders obstruct the operator's view, they could be struck by foreign objects or thrown from the machine.
- ▲ Never allow children to operate equipment.



Tire Safety

- ▲ Tire changing can be dangerous and should be performed by trained personnel using the correct tools and equipment.
- ▲ When inflating tires, use a clip-on chuck and extension hose long enough to allow you to stand to one side and NOT in front of or over the tire assembly. Use a safety cage if available.
- ▲ When removing and installing wheels, use wheel handling equipment adequate for the weight involved.



Important Safety Information

Safety Labels

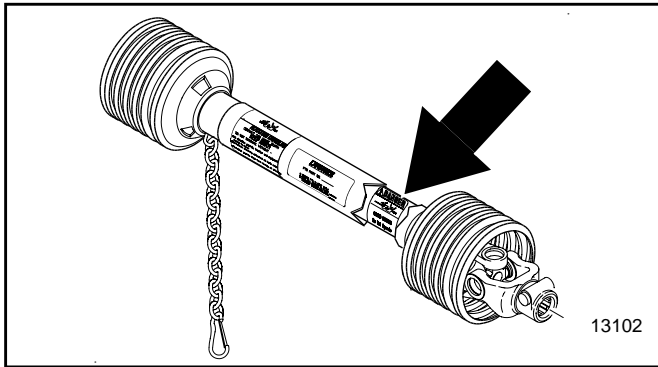
Your Mower comes equipped with all safety labels in place. They were designed to help you safely operate your implement.

1. Read and follow label directions.
2. Keep all safety labels clean and legible.
3. Replace all damaged or missing labels.
4. Some new equipment installed during repair require safety labels to be affixed to the replaced component as specified by Land Pride. When ordering new components make sure

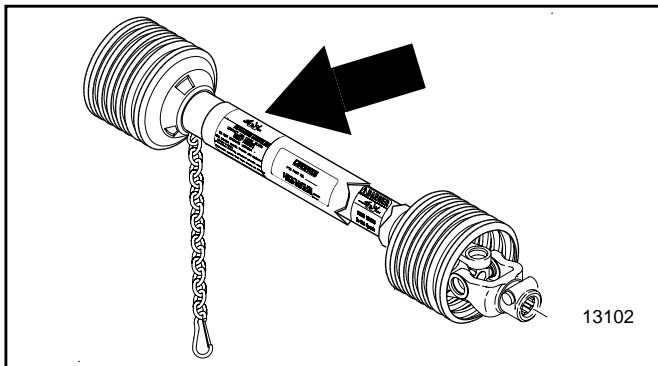
the correct safety labels are included in the request. To order new labels go to your Land Pride dealer.

5. Refer to this section for proper label placement. To install new labels:

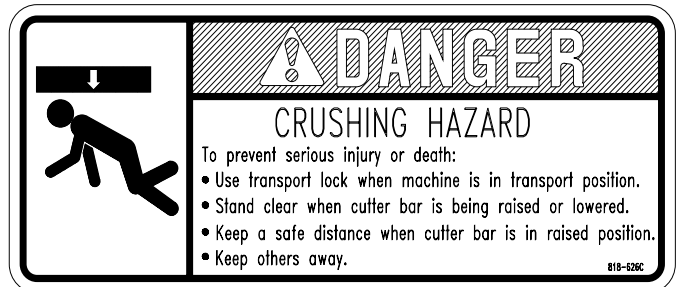
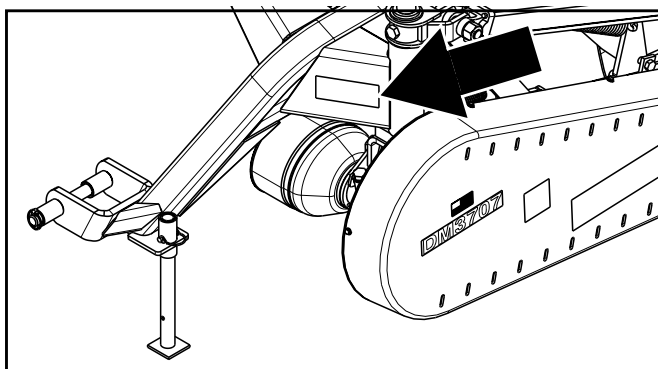
- a. Clean area the label is to be placed.
- b. Spray soapy water on the surface where label is to be placed.
- c. Peel backing from label. Press firmly onto the surface.
- d. Squeeze out air bubbles with edge of a credit card.



818-540C
Danger Guard Missing



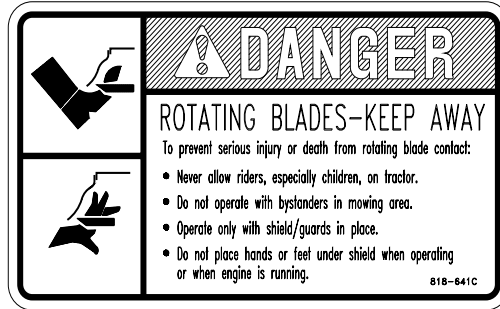
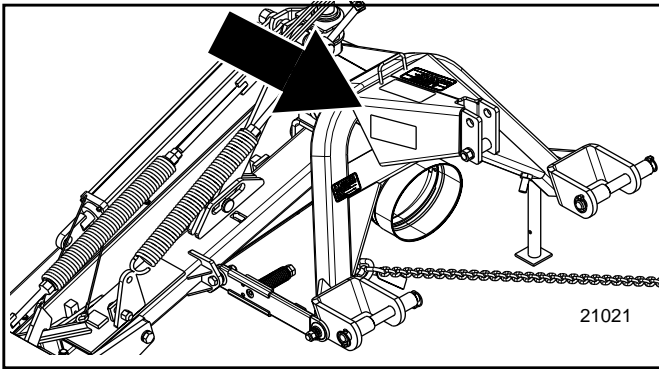
818-552C
Danger PTO Driveline



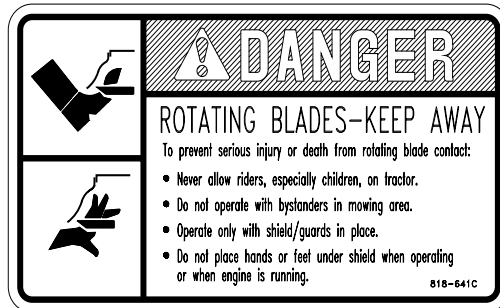
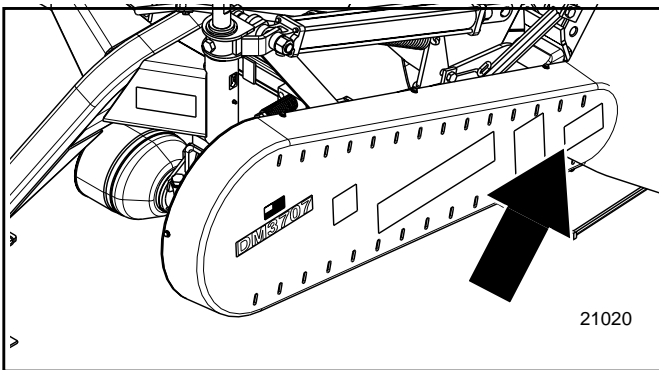
818-626C
Danger Crushing Hazard

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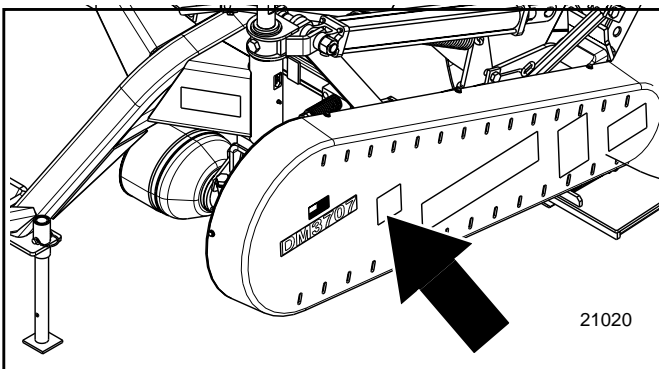
Important Safety Information



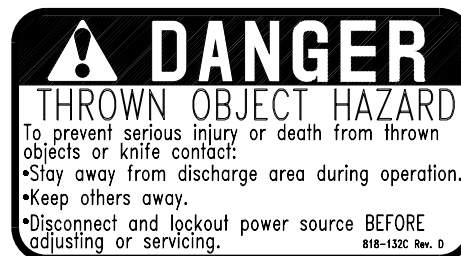
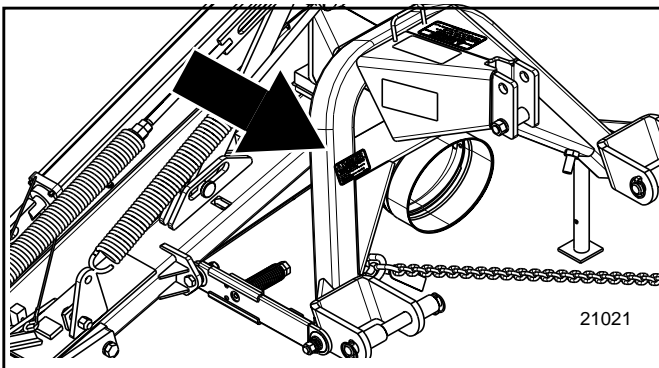
818-641C
Danger Rotating Blades



818-641C
Danger Rotating Blades



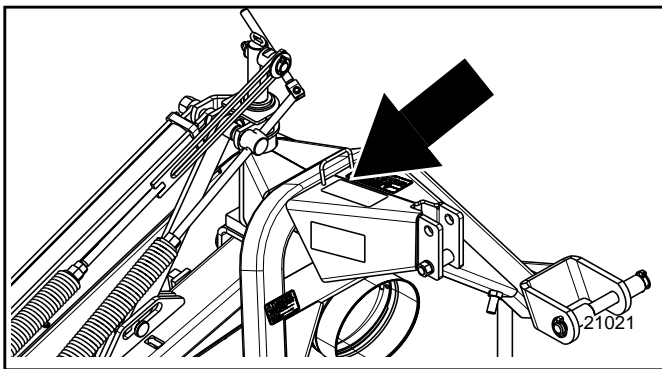
818-642C
Danger Thrown Object



818-132C
Danger Thrown Object

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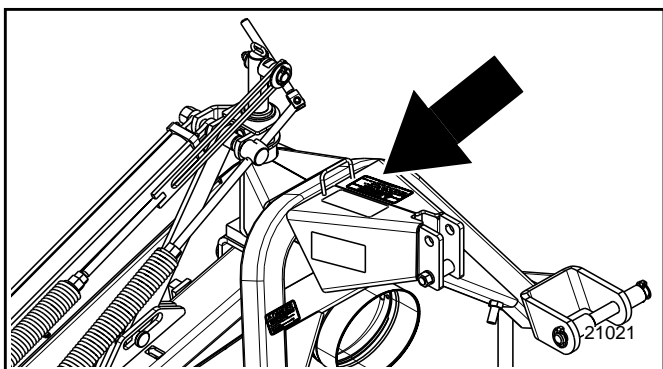
Important Safety Information



	<h3>! WARNING</h3>
	<p>HIGH PRESSURE FLUID HAZARD</p> <p>To prevent serious injury or death:</p> <ul style="list-style-type: none"> • Relieve pressure on system before repairing or adjusting or disconnecting. • Wear proper hand and eye protection when searching for leaks. Use wood or cardboard instead of hands. • Keep all components in good repair. <p style="text-align: right;"><small>838-094C</small></p>

838-094C

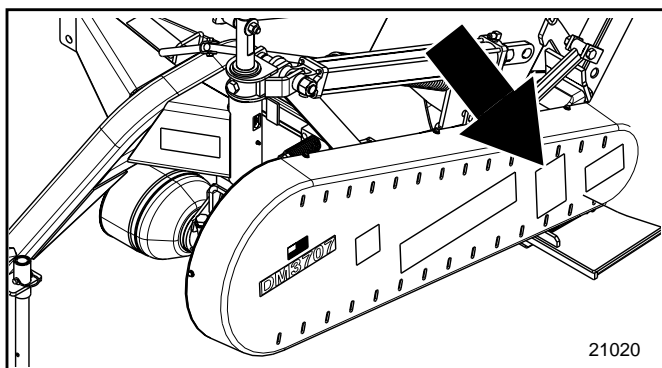
Warning: High Pressure



<h3>! DANGER</h3>	
<p>PINCH POINT HAZARD</p>	
<p>To prevent hitch rotation, before hooking or unhooking unit from tractor three point.</p> <ul style="list-style-type: none"> • Retract cylinder and remove upper spring with slide from pin. <p style="text-align: center;"><small>(See manual for instructions)</small></p> <p style="text-align: right;"><small>838-824C</small></p>	

838-824C

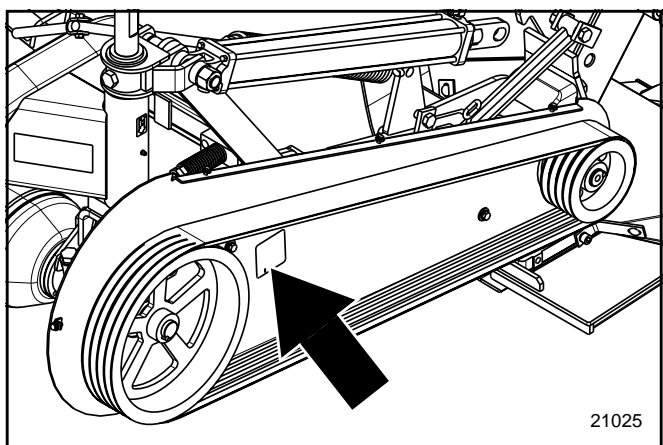
Danger: Pinch Point Hazard



<h3>! WARNING</h3>	
<p>To prevent serious injury or death:</p> <ul style="list-style-type: none"> • Read and understand Operator's manual before using. • Do not permit riders on the tractor or mower. Never carry child on tractor seat. • Operate with guards installed and in good condition. • Operate only with tractor equipped with ROPS and seatbelts. • Keep away from moving parts. • Stop engine, set brake and wait for all moving parts to stop before dismounting. • Be sure lights and reflectors required by law are clean and in good working order before transporting. • Do not allow children to operate mower. • Travel with SWV and lights that follow local codes. • Clean debris from mowing area. • Do not operate in the raised position. • Support securely before working beneath unit. • Review safety instructions annually. <p><i>Si no lee ingles, pida ayuda a alguien que si lo lee para que le traduzca las medidas de seguridad.</i></p> <p style="text-align: right;"><small>818-558C</small></p>	

818-558C

Warning:
General Mower Safety



<h3>! DANGER</h3>	
<p>GUARD MISSING</p> <p>When this is visible</p> <p>DO NOT OPERATE</p> <p>ENTANGLEMENT HAZARD</p> <p>can cause Serious Injury or Death</p> <p><i>Si no entiende ingles, se prefiere que busque a alguien que interprete las instrucciones para usted.</i></p> <p style="text-align: right;"><small>PHDC 6</small></p>	

818-543C

Warning Guard Missing

Introduction

Land Pride welcomes you to the growing family of new product owners.

This Disc Mower has been designed with care and built by skilled workers using quality materials. Proper assembly, maintenance, and safe operating practices will help you get years of satisfactory use from the machine.

Application

The Land Pride Disc Mowers are designed and built to cut hay, grass, and other cultivated forage crops on farms, ranches, set-aside acres, and right-of-ways. They are adapted for 540 rpm 3-point hitch Category II offset mounting and are Quick-Hitch adaptable. They are compatible with 35 HP to 80 HP tractors equipped with live or independent PTO's. The DM3705 has 5 discs and an 82" cutting width. The DM3706 has 6 discs and a 96" cutting width and the DM3707 has 7 discs and a 112" cutting width.

Land Pride Disc Mowers are designed to deliver good cutting performance even in thick, tangled, and wet grass conditions. Standard replaceable rock guards provide cutter bar protection in stony conditions and will greatly extend cutter bar life. A standard break-away latch will release, allowing the cutter bar to swing back, if an obstacle is hit.

Land Pride Disc Mowers are well suited for use in agricultural regions where humidity and moisture conditions are typically higher, where there is a potential for crop entanglement, and where tough ground conditions are present. See "Features and Benefits", "Section 5" for additional information.

Using This Manual

- This Operator's Manual is designed to help familiarize you with safety, assembly, operation, adjustments, troubleshooting, and maintenance. Read this manual and follow the recommendations to help ensure safe and efficient operation.
- The information contained within this manual was current at the time of printing. Some parts may change slightly to assure you of the best performance.
- To order a new Operator's or Parts Manual contact your authorized dealer. Manuals can also be downloaded, free-of-charge from our website at www.landpride.com or printed from the Land Pride Service & Support Center by your dealer.

Terminology

"Right" or "Left" as used in this manual is determined by facing the direction the machine will operate while in use unless otherwise stated.

Definitions

IMPORTANT: A special point of information related to its preceding topic. Land Pride's intention is that this information should be read and noted before continuing.

NOTE: A special point of information that the operator must be aware of before continuing.

Owner Assistance

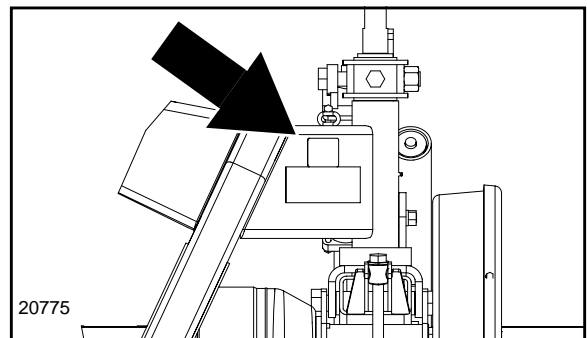
The Warranty Registration card should be filled out by the dealer at the time of purchase. This information is necessary to provide you with quality customer service.

If customer service or repair parts are required contact a Land Pride dealer. A dealer has trained personnel, repair parts and equipment needed to service the mower.

The parts on your Disc Mower have been specially designed and should only be replaced with genuine Land Pride parts. Therefore, should your mower require replacement parts go to your Land Pride Dealer.

Serial Number Plate

For prompt service always use the serial number and model number when ordering parts from your Land Pride dealer. Be sure to include your serial and model numbers in correspondence also. Refer to Figure 1 for the location of your serial number plate.



Serial Number Plate Location
Figure 1

Further Assistance

Your dealer wants you to be satisfied with your new Disc Mower. If for any reason you do not understand any part of this manual or are not satisfied with the service received, the following actions are suggested:

1. Discuss the matter with your dealership service manager making sure he is aware of any problems you may have and that he has had the opportunity to assist you.
2. If you are still not satisfied, seek out the owner or general manager of the dealership, explain the problem and request assistance.
3. For further assistance write to:

Land Pride Service Department
1525 East North Street
P.O. Box 5060
Salina, Ks. 67402-5060

E-mail address
lp servicedept@landpride.com

Section 1: Assembly and Set-Up

Tools Required

- Fork lift, crane hoist or block-and-tackle
- Impact wrench or socket and ratchet set (English & metric)
- Rubber mallet
- Box-end (english & metric), allen (english & metric) and crescent wrenches
- Drift pins
- Screwdriver
- Safety shoes, safety glasses and gloves. A hard hat should be worn by anyone working under the crane.

Assembly Preparation

Having all parts and equipment readily at hand will speed up your assembly task and make the job as safe as possible.

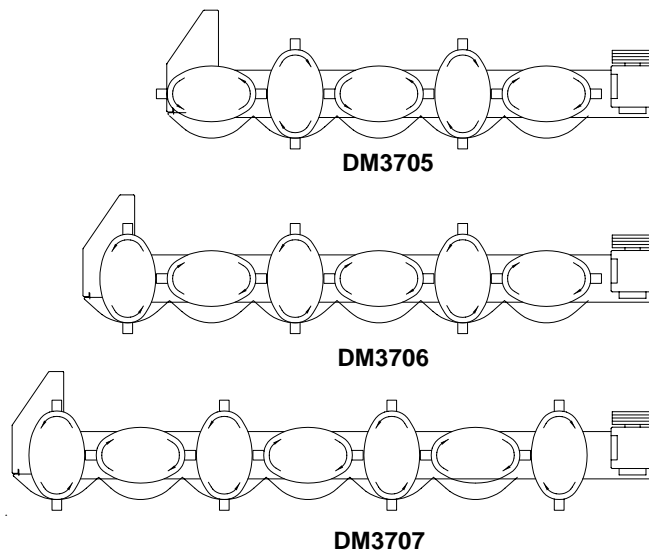
Prepare Disc Mower assembly area by removing other equipment and then sweeping it clean of dust and contaminants. Un-pack crate and remove all contents. Be careful not to break hydraulic seals or pull off hydraulic components.

NOTE: Remove heavy components from crate with a hoist or block-and-tackle.

Raise 3-point mainframe with a forklift, hoist or block-and-tackle and place on pallets or blocks so it is elevated about 10" off the floor.

Your cutter bar is shipped assembled and must be checked for correct cutter plate arrangement. Figure 1-1 indicates correct cutter plate arrangement for different mower sizes. Refer to "**Cutter Bar Timing Adjustment**" on page 22 to make adjustments to cutterplates.

Also shown in Figure 1-1 is a rotation arrow on each cutter plate indicating direction of cutter plate rotation. The cutting edge of the cutter blades should lead in the direction of cutter plate rotation. This direction alternates from one cutter plate to the next. Make certain all cutting blades have been mounted correctly. Remove any blades installed incorrectly and reinstall them in the correct cutting direction. Refer to "**Blade Replacement**" on page 21 for instructions on how to install blades.



15144

**Cutter Bar Plate Rotation
Figure 1-1**

Gearbox and Cutter Bar Lubrication

The gearbox and cutter bar should arrive filled with SAE 90 GL4 (EP) gear lube. However, you should **check oil level in both before using** and add oil if necessary.

IMPORTANT: The recommended quantity of cutter bar oil should not be exceeded. Results of overfilling will be overheating with potential for severe damage to the cutterbar.

Additional instructions and specifications for gearbox and cutter bar are provided as noted below:

Gearbox Lubricationpage 23
 Cutter Bar Lubrication.page 24
 Gearbox Specifications.page 25
 Cutter Bar Specificationspage 25

Section 1: Assembly and Set-Up

Main Frame to Cutter Bar Assembly

Refer to Figure 1-2:

- The cutter bar gearbox (#1) is shipped with nylon bushings (#2) mounted on both sides of gearbox thru input shaft. Slide reach arm pivot lug (#3) over nylon bushing (#2) as shown.
- Slide pivot lug arm bracket (#4) over nylon bushing (#2) as shown. Attach pivot lug arm bracket (#4) to reach arm weldment (#3) with 3/4" x 1 1/4" grade 5 hex head bolts (#5), and Lockwashers (#6). Apply LocTite to bolt threads and tighten to proper torque.
- Remove linch pin (#13) and 1" USS flat washer (#12) to disconnect upper spring (#9) from pin (B). Reattach linch pin (#13) and flat washer (#12) to pin (B) for safe keeping. Attach upper spring (#9) to pin

(A). Secure with 1" SAE flat washer (#10) and 5/32" x 1 3/4" cotter pin (#11). Do not reconnect upper spring to pin (B) until after mower is attached to tractor's 3-point arms.

PTO Guard Assembly

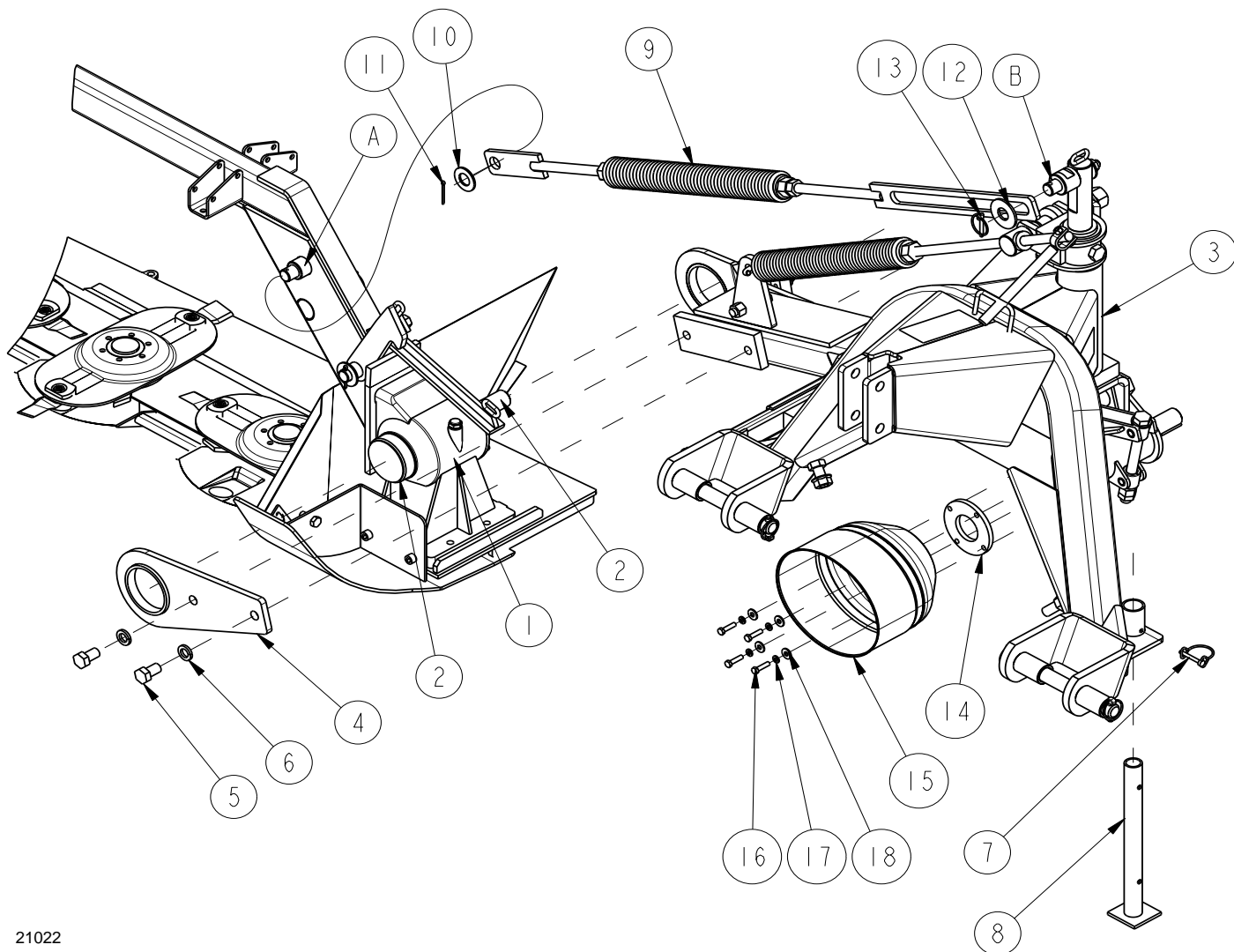
Refer to Figure 1-2:

- Attach bell shaped guard (#15) to main frame housing with spacer (#14), 5/16" x 1 1/4" hex bolt (#16), lockwasher (#17), and flat washer (#18). Tighten to correct torque.

Support Stand Assembly

Refer to Figure 1-2:

- Remove linch pin (#7) to adjust support stand (#8). Raise or lower stand in guide tube to a suitable height and replace linch pin.



21022

Figure 1-2

Section 1: Assembly and Set-Up

Cutter Bar Assembly

Refer to Figure 1-3:

2. Attach outside material guide (#3) to cutter assembly with 1/2" x 3 1/2" grade 5 hex head bolt (#8), 1" dia. x 2" compression spring (#15), flat washer (#12), and nylock nut (#11) as shown. Tighten locknut to compress spring (#15) only enough to retard guide movement.
3. Assembly front curtain support frame (#1) to curtain support beam (#6) with three 3/8" x 2 1/2" grade 5 hex bolts (#9) as shown. Secure with hex nylock nuts (#10) as shown. Secure with hex nylock nuts (#10) and tighten to correct torque.
4. Assembly rear curtain support frame (#2) to curtain support beam (#6) with six 3/8" x 2 1/2" grade 5 hex bolts (#9). Secure with hex nylock nuts (#10) and tighten to correct torque.
5. Do not attach end bumpers (#7) to curtain support frames until instructions for "**Canvas Curtain Assembly**" on page 12 are completed.

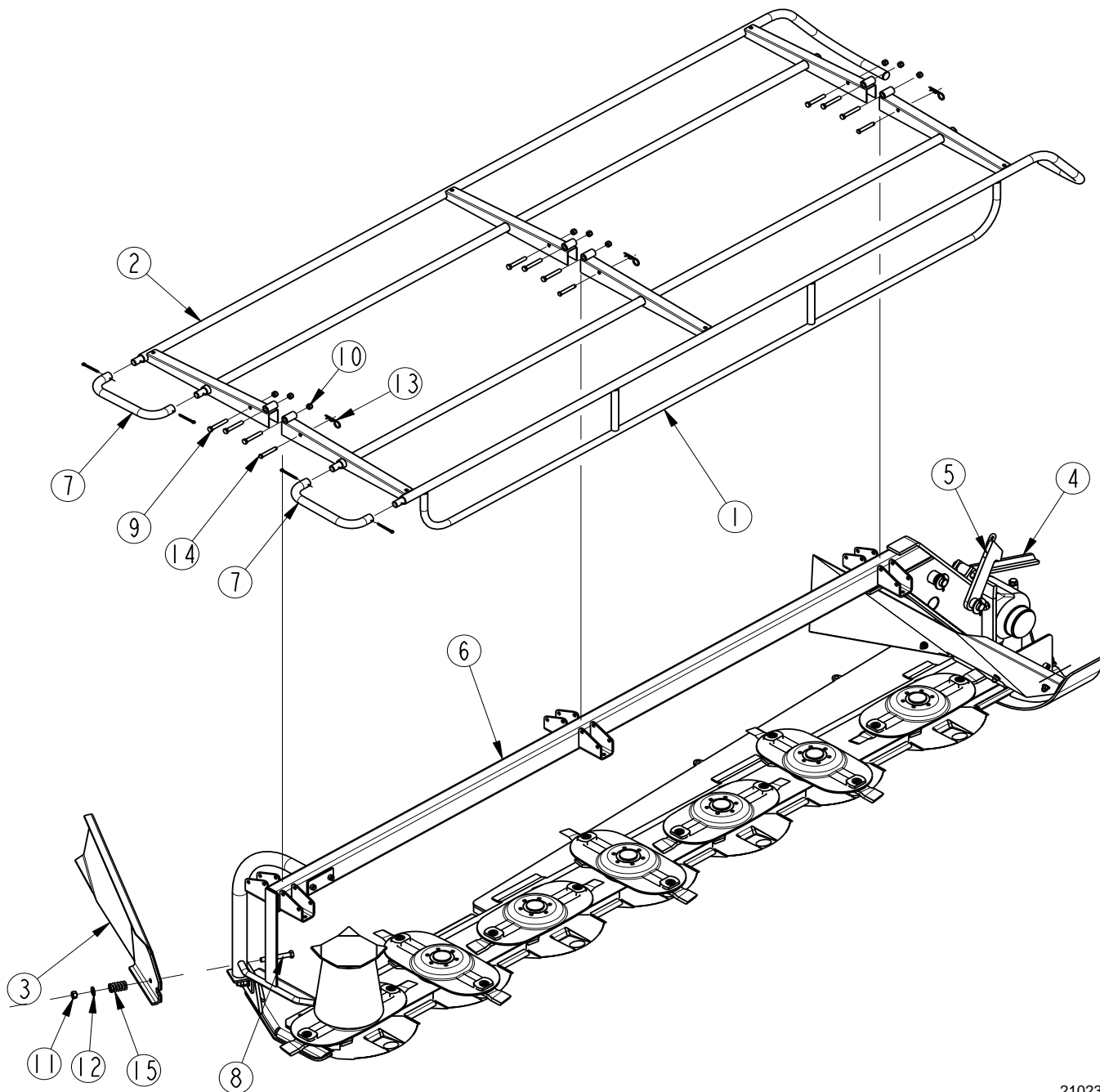


Figure 1-3

21023

Section 1: Assembly and Set-Up

Main Frame Assembly (Back Side)

Refer to Figure 1-4 and Figure 1-5:

1. Remove plastic cap from lower port in hydraulic cylinder (#15) and extend cylinder (#15) to connect cylinder rod eye (A) to pin (B). Secure with 1" Flat washer (#11) and cotter pin (#12).
2. Attach O-ring fitting (#18) to cylinder port opening and tighten. Attach hydraulic hose (#19) to O-ring fitting (#18) and tighten.
3. Attach coupler (coupler supplied by owner, not by Land Pride) to opposite end of cylinder hose (#19).
4. Install inner belt guard with four 3/8" x 1" hex bolts (#6), flat washers (#9), and lockwashers (#10).
5. Check hub type in both pulleys. Pulleys with standard bore hubs are provided with set crews. Pulleys with an oversized bore are provided with taper lock bushings that must be inserted into the pulleys. Do not tighten taper lock bushings until after they have been assembled to the shaft.
6. Install larger drive pulley (#13) with 5/16" x 2" key (#4) to main jack shaft allowing 3/8" clearance between pulley and inner shield. Tighten either taperlock bolts or set screws to correct torque.
7. Install smaller driven pulley (#14) with 5/16" x 2" key (#4) to cutter gearbox input shaft. Align pulley (#14) with pulley (#13) and tighten either taperlock bolts or set screws to correct torque.
8. Refer to "**Belt Tension Adjustment**" on page 20. Loosen pivot bolt and pulley tensioning bolt. Install drive belt (#16) over pulleys (#13, & #14) and tension per instructions for "**Belt Tension Adjustment**" on page 20".
9. Reinstall outer belt guard housing (#20) to inner belt guard mounting plate with seven 1/4" hex bolts (#5), lock washers (#9), and flat washers (#10).

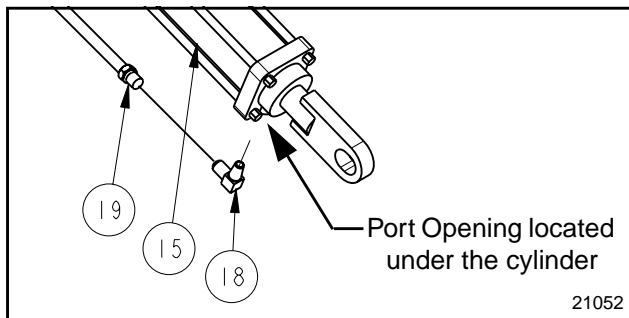


Figure 1-5

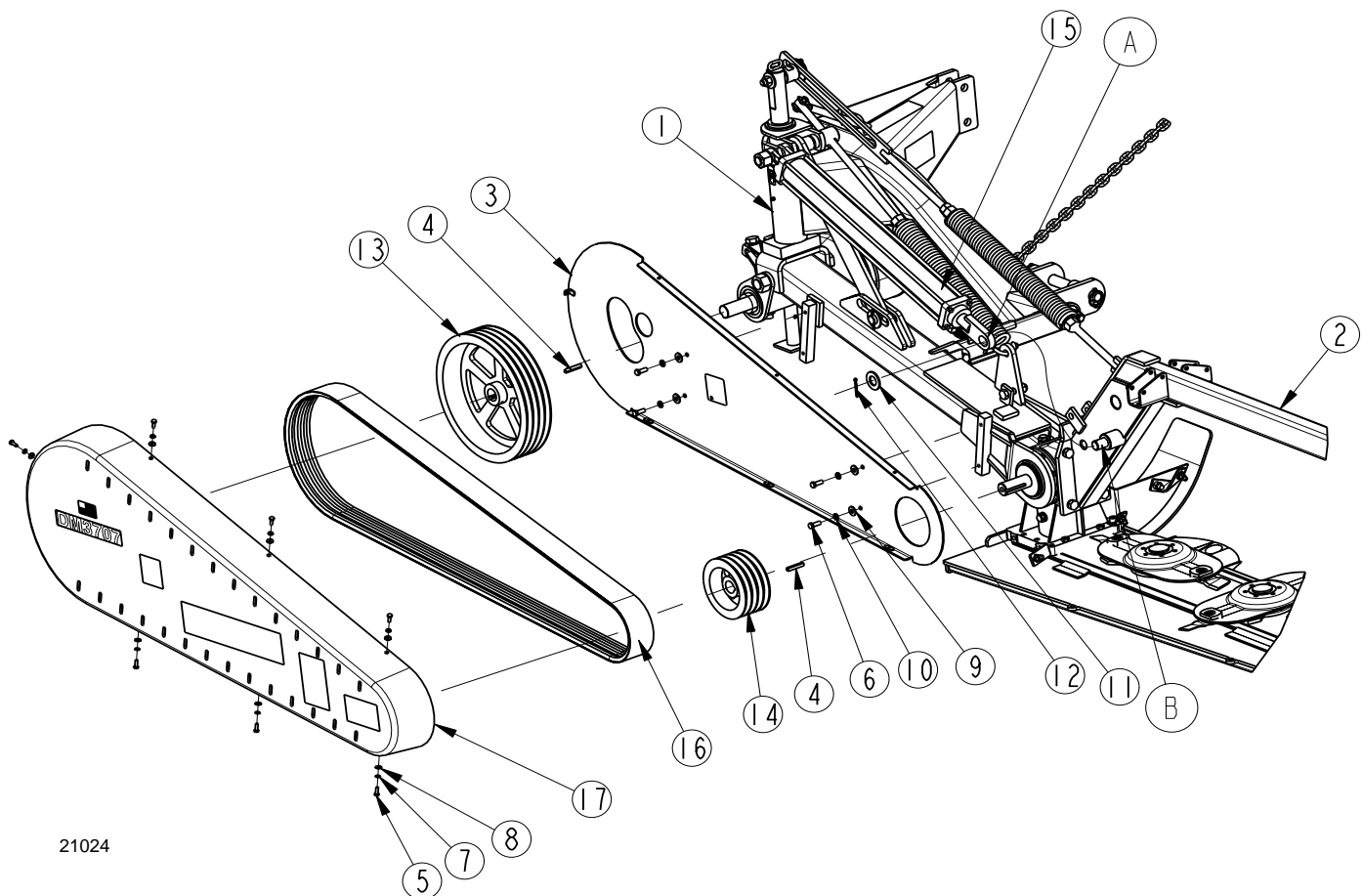


Figure 1-4

Section 1: Assembly and Set-Up

Canvas Curtain Assembly

Refer to Figure 1-6:

1. Place canvas curtain (#1) over curtain support frames (#6 & #7) with sewn cut-out end located over cutter gearbox.
2. Slip curtain canvas eyelets (A) over curtain support frame end posts (B).
3. Reattach end bumpers (#4) to curtain support frames (#6, & #7) with cotter pins (#5).

4. Attach canvas curtain to center curtain support beam (#9) using cable ties (#2).
5. Attach canvas curtain to support frames (#6 & #7) using cable ties (#3).



DANGER

Do not operate cutting unit without tarp in place!

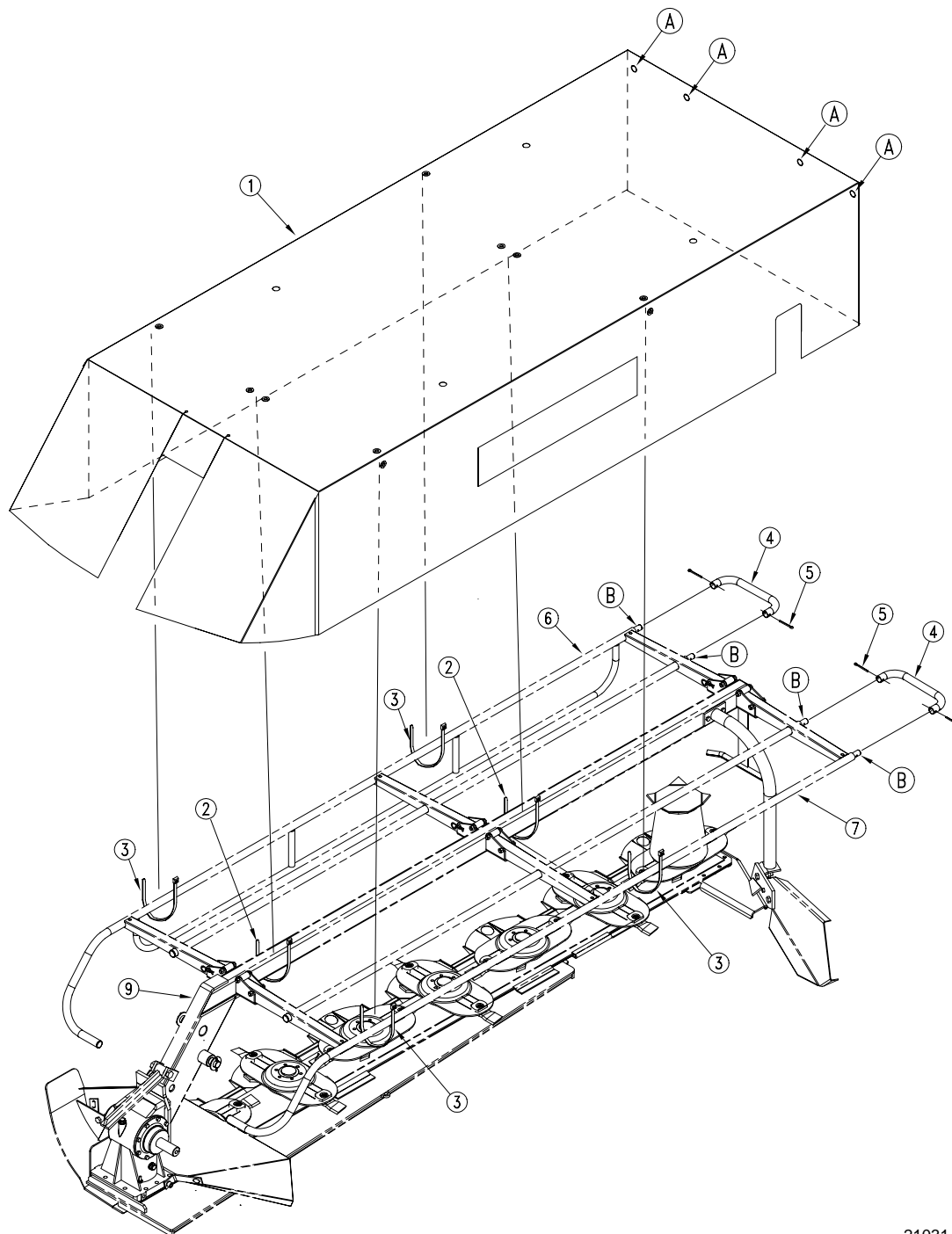


Figure 1-6

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3-point Pin Set-up

Refer to Figure 2-1:

The 3-point pins in the mower may be arranged four different ways to accommodate different tractor sizes. The first 3-point offset arrangement shown below positions the first cutter blade closest to the tractor. Each arrangement thereafter is further away. Select a pin arrangement that will allow the first cutter blade to extend beyond the tractor's back right wheel far enough to cut a full mower swath without the tractor's wheel running over material being cut.

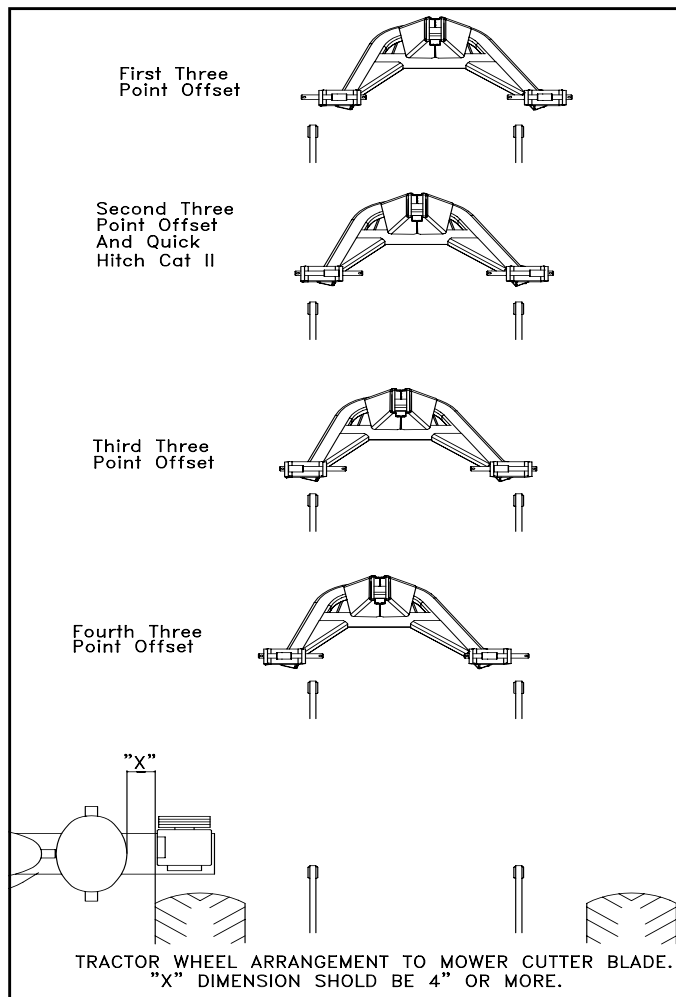


Figure 2-1

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WARNING

Be sure driveline is properly connected. A loose yoke could slip and cause personal injury or damage to the mower.

CAUTION

By their nature rotary disc throws debris and although curtain stops most of it, some debris is still thrown towards the operator. Select a tractor with a cab or shield to protect operator from thrown debris.

Tractor Hook-up

DANGER

Refer to Figure 1-2 on page 9. Do not connect or disconnect mower to tractor with upper spring (#9) connected to pin (B). The upper spring pulls on the 3-point main frame and will quickly turn the main frame upon removing one of the tractor's 3-point arms.

6. Back tractor up to the disc mower so that the lower 3-point arms are aligned with lower lift pins of the disc mower. Connect to lower 3-point arms with proper attaching hardware. Connect 3-point upper link.
7. Raise mower cutter bar off the ground slightly by actuating the hydraulic cylinder.
8. Adjust length of tractor's two sway link arms to prevent swaying from side to side.
9. The check chain is used when tractor's 3-point hitch is unable to hold the mower in the working position. Attach check chain to top 3-point center link of tractor making sure that hitch stop pin is aligned with run indicator decal #838-524C as shown in Figure 2-2 below. This is known as the working position.

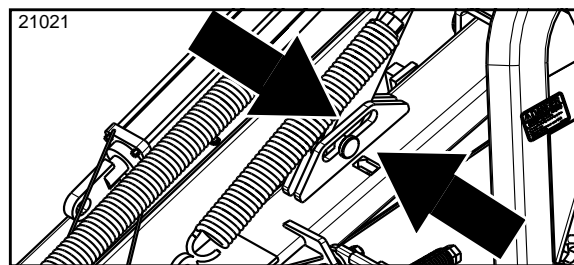


Figure 2-2

IMPORTANT: Mower must be leveled at the 3-point arms for mower and hitch level stop pin to work properly.

10. With mower attached, park tractor on a flat level surface and adjust lower 3-point draft arms to level mower. Verify levelness by measuring distance from center of connecting pins to floor. This distance should be the same for both connecting pins.
11. Raise support leg and position it in the high position.

IMPORTANT: The tractor must have enough counter weight on the front to transport over rough terrain without front wheels lifting off the ground.

12. Add ballast weights to front of tractor as needed to counter balance mower weight.

Section 2: Operating

Driveline Installation

Refer to Figure 2-3 on page 14:

An additional driveline may be required if Disc Mower is to be used on more than one tractor especially if a quick hitch is used.

WARNING

Damaged drivelines can cause serious injury or death.

CAUTION

Tractor PTO shield and all Disc Mower guards must be in place at all times during operation!

WARNING

Damaged drivelines can cause serious injury or death.

CAUTION

Always engage parking brake, shut off tractor and remove key before dismantling from tractor.

IMPORTANT: Some tractors are equipped with multi-speed PTO ranges. Be certain your tractor's PTO is set for 540 rpm.

IMPORTANT: Always check driveline minimum length during initial setup, when connecting to a different tractor and when alternating between using a quick hitch and a standard 3-point hitch. More than one driveline may be required to fit all applications.

IMPORTANT: It is necessary to aligning tractor's PTO shaft level with Disc Mower's gearbox shaft when checking driveline minimum length. Too long a driveline can damage tractor, gearbox and driveline.

Checking Driveline Minimum Length

Refer to Figure 2-3:

1. Start tractor and slowly engage 3-point to move lower arms until Disc Mower's gearbox shaft is approximately level with tractor's PTO shaft.
2. Slide inner yoke of driveline over gearbox shaft and secure in place.
3. Slide outer yoke of driveline over tractor PTO shaft and secure with locking collar. Skip to step 5 on page 14 if driveline fits between tractor and Disc Mower.
4. The driveline will require shortening if it is too long to fit between tractor and Disc Mower. Shorten driveline as follows:

- a. Raise or lower 3-point lower arms until Disc Mower and tractor PTO shafts are approximately level with each other. Securely block Disc Mower frame in this position.
- b. Set tractor in park, shut tractor engine off, set park brake and remove switch key.
- c. Pull driveline apart into two sections as shown in Figure 2-3. Attach outer driveline universal joint to tractor PTO shaft. Attach inner driveline universal joint to gearbox shaft. Pull on each driveline section to be sure universal joints are secured to the shafts.
- d. Hold driveline sections parallel to each other to determine if they are too long. The inner and outer shields on each section should end approximately 1" short of reaching the universal joint shield on the adjacent section (see "B" dimension). If they are too long, measure 1" ("B" dimension) back from universal joint shield and make a mark at this location on inner and outer driveline shields.
- e. Cut off inner shield at mark ("X" dimension). Cut same amount off inner shaft ("X1" dimension). Repeat cut off procedure ("Y" & "Y1" dimensions) to cut outer driveline half.
- f. Remove all burrs and cuttings.

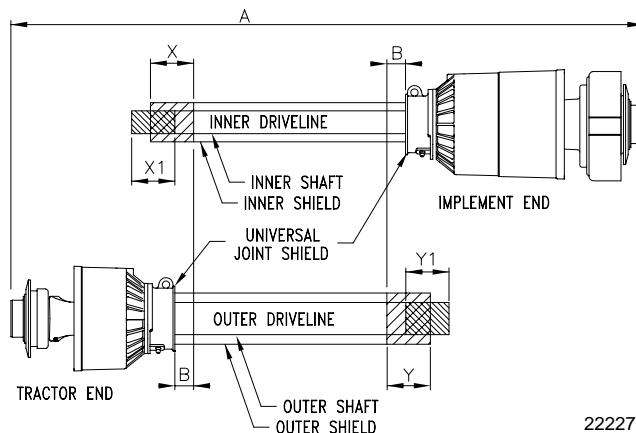


Figure 2-3

5. Apply multi-purpose grease to the inside of outer driveline shaft and reassemble the two shafts.
6. Attach inner driveline yoke to mower gearbox input shaft.
7. Attach outer driveline yoke to tractor's PTO shaft.
8. The driveline should now be moved back and forth to insure that both ends are secured to the tractor and Disc Mower PTO shafts. Reattach any end that is loose.

Section 2: Operating

IMPORTANT: Two small chains are supplied with the driveline. These chains must be attached to outer and inner driveline yoke shields and to the cutter deck and tractor to restrict driveline shields from rotating.

9. Hook one of the driveline safety chains in a hole on the outer driveline yoke shield and the opposite end to the tractor to restrict outer shield rotation.
10. Hook second driveline safety chain in a hole on the inner driveline yoke shield and the opposite end to the Disc Mower to restrict inner shield rotation.
11. Start tractor and raise Disc Mower just enough to remove blocks used to support Disc Mower frame in step 4a on page 14.
12. Slowly engage tractor's hydraulic 3-point to lower Disc Mower. Check for sufficient drawbar clearance. Move drawbar ahead, aside or remove if required.

Rope Hook-up

Refer to Figure 2-4:

Two ropes are provided so that the operator does not need to get off the tractor to unlock cutter bar in the up position after transporting. Thread both ropes through the guide loop (#1) located on top of the main frame and tie free ends to tractor within reach of operator.

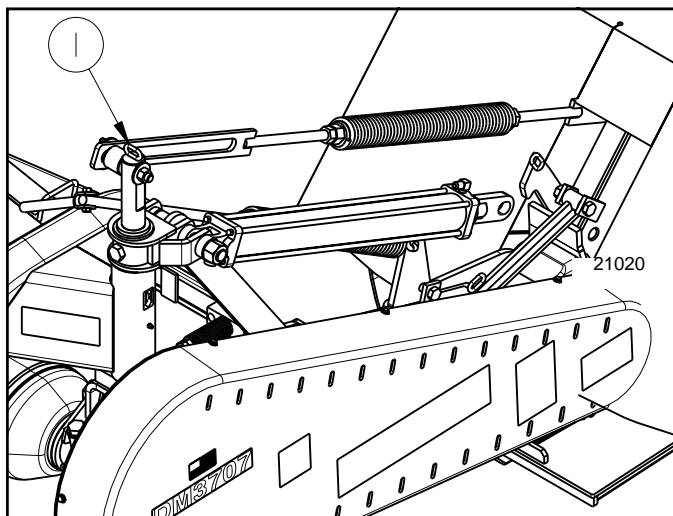


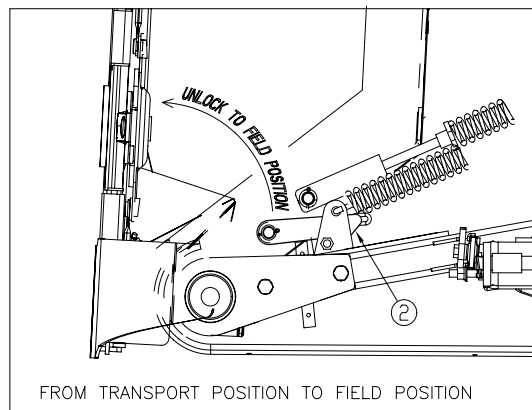
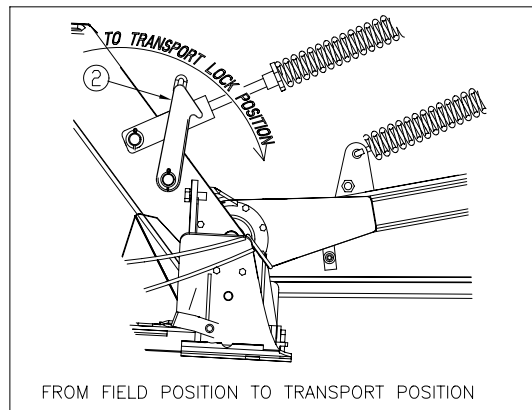
Figure 2-4

Transport Latch Operation

Refer to Figure 2-5:

Change mower from field position to transport position by pulling on field run latch rope and retracting hydraulic cylinder until transport latch (#2) engages.

Change mower from transport position to field position by retracting hydraulic cylinder, pulling on transport latch rope (#2), and then extending hydraulic cylinder until cutter bar reaches field running position.



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Figure 2-5

Upper Spring Connection

Refer to Figure 1-2 on page 9:

! DANGER

Do not connect or disconnect mower to tractor with upper spring (#9) connected to pin (B). The upper spring pulls on 3-point main frame and will quickly turn main frame upon removing one of the tractor's 3-point arms.

The upper spring (#9) should be connected to pin (B) after mower has been hooked-up to a tractor and disconnected from pin (B) before unhooking mower from a tractor.

After Hooking-up Mower to Tractor

Attach upper spring (#9) by retracting hydraulic cylinder until spring's slotted bar is inserted over pin (B). Secure upper spring to pin (B) with flat washer (#12) and linch pin (#13).

Before Unhooking Mower From Tractor

Disconnect upper spring (#9) by retracting hydraulic cylinder until upper spring slotted bar can be removed from pin (B). Remove flat washer (#12), linch pin (#13), and slotted bar from pin (B). Return washer and linch pin to pin (B) for storage.

Section 2: Operating

Spring Tension Adjustment



Before making any adjustments to this implement, disengage PTO, shut off tractor, remove ignition key and wait for all moving parts to stop. Disconnect PTO driveline.

There are two springs on the mower. The lower spring attached to the reach arm adjusts response time between when 3-point arms raise and when cutter bar starts to raise. The upper spring attached to the curtain support arm adjusts ability of cutter bar to float on the ground.

Adjusting Lower Spring Tension

IMPORTANT: The mower must be leveled for lower spring tension to work properly. See Tractor Hook-up paragraph 5 on page 13 for instructions on leveling.

1. Refer to **Figure 2-2** on page 13. Position 3-point arms so that hitch level stop pin aligns with run indicator arrow (decal 838-524C).
2. Refer to **Figure 2-6** below. Adjust accordingly by turning handle until "X" dimension is equal to the dimension represented below for your mower.
 - DM3705 X = Approximately 2 3/4"
 - Dm3706 X = Approximately 2 1/8"
 - DM3707 X = Approximately 1 1/2"
3. The lower spring may need readjusting after several hours of running.

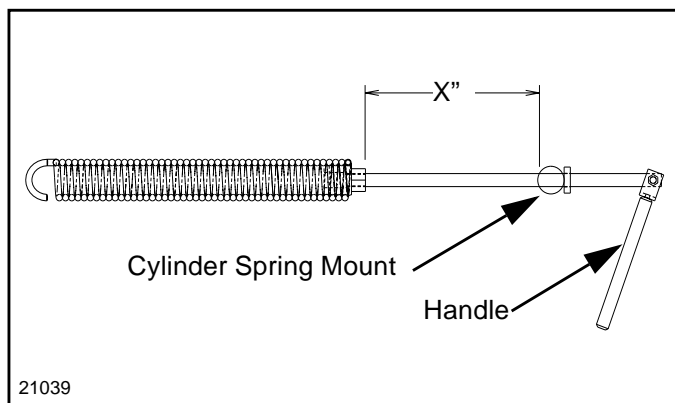


Figure 2-6

Adjusting Upper Spring Tension

IMPORTANT: The mower must be leveled for upper spring tension to work properly. See Tractor Hook-up paragraph 5 on page 13 for instructions on leveling.

1. Attach upper spring slotted arm to mower as outlined in the section titled "**Upper Spring Connection**" on page 15.

2. Refer to **Figure 2-2** on page 13. Position 3-point arms so that hitch level stop pin aligns with run indicator arrow (decal 838-524C).
3. Refer to **Figure 2-7** below. Retract hydraulic cylinder to release upper spring tension and loosen jam nut. Adjust spring by turning it until "X" dimension is equal to the dimension represented below for your mower. This dimension should adjust pick-up weight of mower end to approximately 100 lbs when hydraulic cylinder is extended to field operating position. Retighten jam nut.
 - DM3705 X = Approximately 3"
 - Dm3706 X = Approximately 2"
 - DM3707 X = Approximately 1"

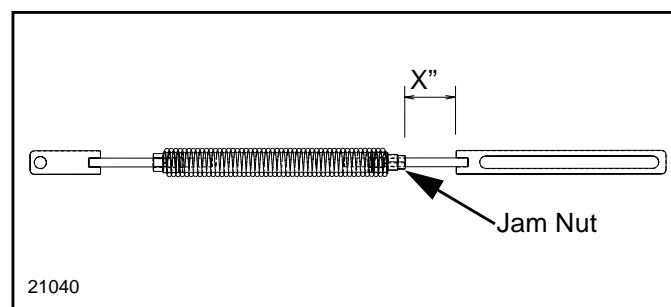


Figure 2-7

Transporting



When traveling on public roads at night or during the day, use accessory lights and devices for adequate warning to operators of other vehicles. Comply with all federal, state and local laws.

IMPORTANT: Always disengage tractor's PTO before raising mower to transport position.

NOTE: When raising mower to transport position be sure that PTO shaft does not contact tractor or mower.

1. Raise cutter bar so it is in a vertical position.
2. Make sure transport lock engages.
3. Make sure support leg is secured in the high position.
4. Approach disc mower from rear making sure Slow Moving Vehicle emblem on tractor is visible to oncoming traffic.
5. Select a safe ground speed when transporting from one area to another. When traveling on roadways, transport in such a way that faster moving vehicles may pass you safely.
6. When traveling over rough or hilly terrain, shift tractor to a lower gear.

Section 2: Operating

Operating Check List

In addition to design and configuration of equipment, hazard control and accident prevention are dependent upon awareness, concern, prudence and proper training involved in operation, transport, maintenance and storage of equipment. Perform inspection checks before cutting with the mower. See Operating Checklist on left side of this page.

Operating Checklist		
4	Check	Reference
	Safety Rules have been read and	Page 1
	Operating Instructions have been read and understood.	This section
	Check oil level in gearbox and cutter bar.	Page 23
	Check to see that all oil plugs in gearbox and cutter bar are installed and tight.	Page 23
	Check to see that all nuts and bolts are tight.	Page 28
	Check to see that all guards and shields are in place.	Operator's Manual
	Lubricate mower as noted in Maintenance and Lubrication Section.	Page 23
	Check to see that all implement attaching points and hardware are secure and in place.	Operator's Manual
	Check all Hydraulic lines and fittings for leaks.	Operator's Manual

Working Position



DANGER

The driveline and gearbox shields must be in place and secure when operating to avoid injury or death from entanglement in rotating drivelines.



DANGER

Do not operate mower without the curtain completely in place around cutter bar. Do not lean against or stand on curtain.



WARNING

Before lowering cutter bar, make sure no one is within 20 feet of mower.

1. Lower mower using tractor 3-point lift.
2. Retract hydraulic cylinder and pull rope to disengage transport latch. See “**Transport Latch Operation**” on page 15.
3. Raise 3-point hitch so inner end of cutter bar is approximately 12” off the ground. Lower cutter bar hydraulic cylinder to position outside end of cutter bar to just touch the ground. Refer to **Figure 2-2** on page 13 and lower 3-point to working position so that hitch level stop pin aligns with run indicator arrow (decals 838-524C).
4. Put tractor hydraulics into float position. The mower will not follow ground contours correctly if not in float position.

NOTE: Before using the mower, check safety break-away linkage to make sure all components work correctly. See page 18.

Mowing Instructions

NOTE: Although mower is shielded to prevent objects from being thrown by the blades, no one shield is 100% effective. Most people are not knowledgeable of dangers to being around a disc mower while it is in operation. Therefore, the operator should always stop mowing when someone is near by.



WARNING

Prolonged exposure to high sound levels require hearing protection. Wear hearing protection when operating this machine with open platform tractors.

Allow a few minutes for oil to spread in cutter bar before engaging PTO when changing from transport to operating position.

With cutting bar on the ground, engage PTO at low tractor idle and accelerate gradually to 540 rpm PTO speed.

If cutter bar is operated at an angle for long periods of time, hold it horizontal for a few minutes every half hour or so of work to help lubricate gears at either end of cutter bar.

Adapt forward speed to working conditions. Gear down when mowing in dense crops. Do not lower tractor rpm.

Adverse Field Conditions



WARNING

The upper gears will not receive sufficient lubricant if cutterbar cutting angle is more than 35° up or down. Also the belt guard and drive belt will be damaged if cutter bar cutting angle is down more than 35°

Section 2: Operating

The cutting angle is defined as the angle the cutter bar is to the tractor axle during operation. For example, cutter bar angle would be down if cutting a declined surface from a level surface and up if cutting an inclined surface. Do not exceed a maximum of 35° up or down. Damage to cutter gears, belt guard and drive belt may occur.

DANGER

Do not use machine in rocky or stony conditions.

Extra care and precaution should be taken in rough or debris-ridden fields. The following adjustments should be made to the mower in these conditions to minimize possibility of foreign objects being deflected by the cutting blades.

1. Lengthen top 3-point center linkage to tilt angle of cutter bar and raise height of cutter knives.
2. Reduce forward speed.
3. Check cutting blades to make sure they pivot after hitting an obstruction.

IMPORTANT: If an obstruction is hit, disengage PTO, idle engine, shut off tractor, remove ignition key and wait for all moving parts to come to a complete stop. Inspect entire mower and repair any damage before resuming operation.

CAUTION

Do not disengage PTO when engine is at full PTO rpm except in emergency situations such as when hitting an obstruction. When possible, always idle engine before disengaging PTO.

IMPORTANT: To avoid personal injury, pick up all rocks and other debris before mowing. Never assume an area is clear, so enter a new area carefully. Cut material higher the first time to allow mower to clear unseen objects.

Safety Break-Away

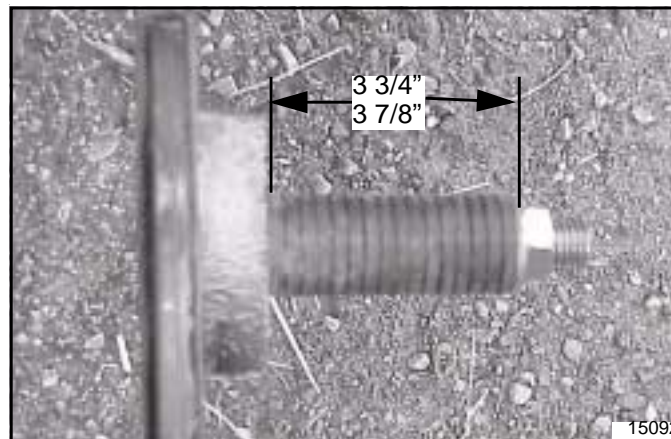
The break-away latch allows cutter bar to swing back if an obstruction is hit. If latch releases, stop tractor immediately, idle engine and disengage PTO.

To reset cutter bar, back mower slowly and carefully until break-away latch repositions. The factory setting of latch is adapted to most working conditions.

Check cutter bar for any damage before resuming operation.

If cutter bar continues to break away after resetting, spring assembly pressure can be increased. In all cases the length must not be less than 3 3/4" to 3 7/8" or safety disengagement cannot function.

The stack of spring washers should be compressed to 3 3/4" to 3 7/8". See figure 2-8



Spring Washers
figure 2-8

Spring washers can get flat over time and will need to be replaced. To replace weak spring washers, see “**Blade & Belleville Washer Pt. No’s.**” on page 22.

Operating Instructions

By now you should have thoroughly read your Disc Mower Operator’s Manual, properly attached your Land Pride Disc Mower to your tractor, and reviewed Operating Check list. If you have not yet completed all of these functions, please do so now.

Now that you’re properly briefed and your Disc Mower is ready, it’s time to transport to the field.

For transport purposes, your Disc Mower should be securely locked with the cutter bar in the upright or vertical position. Make sure the support leg is in the high position. A “Slow Moving Vehicle” sign should be in place and visible from the rear if you are using a public road or right-of-way. Select a safe speed and transport to your cutting site in such manner that faster moving vehicles can pass you safely.

Once you have safely arrived at your field, position the tractor on level ground. Make sure that no one is within 20 ft of the mower and lower the 3-point hitch to a point where the inboard end of the cutter bar is approximately 12" off of the ground. Retract your lift cylinder and pull on the latch cord to release the transport or road-latch mechanism. Using your lift cylinder control lever, slowly lower the cutter bar until the outer end touches the ground. Adjust the 3-point hitch to “working position” where the hitch level stop pin aligns with run indicator arrow as shown in Figure 2-2 on page 13. Lock the 3-point hitch control lever in place. Lock the hydraulic lever of tractor in float position. Your Disc Mower is now in working position.

Controlling or setting your cutting height is accomplished by adjusting the “top link” on your 3-point hitch.

Section 2: Operating

Extending or lengthening the top link will raise your cutting height, while shortening the top link will lower the cutting height. If you are cutting in an area you are not familiar with or believe there might be rocks or debris present, you must raise the cutting height accordingly. This will reduce the potential of personal injury and/or damage to the machine. Shut the mower down immediately if someone approaches in a vehicle or on foot.

If you do hit an object when you are mowing, immediately disengage the PTO, idle the engine, stop the tractor, wait for all moving parts to come to a complete stop, shut off the tractor, set the brake, remove the keys, and inspect for damage. If damage is present, make the necessary repairs. If no damage is present, but you have tripped the Break Away Safety Latch, slowly reverse the tractor until the latch resets and proceed with mowing operations.

Prior to actually beginning cutting operations, you will want to get the mower up to full 540 rpm PTO speed by engaging the PTO with the tractor engine at idle and gradually increasing engine rpm to PTO speed. Once you reach the full 540 rpm, allow the mower to run for a few minutes at level position so the oil in the cutter bar can lubricate all internal moving parts. You will also want to take this opportunity to make a quick Operational Running Check. Listen and visually inspect for any component or part that may be loose or out of adjustment. Don't be alarmed by the noise level of the free running Disc Mower. It will actually become quieter when you begin mowing and have some run in time on it.

If your Operational Running Check was ok, begin mowing operations by opening up lands on your field. Make enough lands so you can easily make turns to properly line up for each pass down the field. If your tractor and Disc Mower are set up right, you should be able to straddle the previous swath as you make each subsequent pass starting in the center of the field. If you do experience cutting problems, refer to the "Trouble Shooting" section of the Operator's Manual for corrective action.

When you are done mowing for the day and need to transport the mower to your storage site, simply pull on the field run latch rope and retract the hydraulic cylinder until the transport latch engages.

When you are done mowing for the season, clean and lubricate your mower, replace worn or missing parts, release tension on the belts, install the stroke control to the tarp frame cushion spring rod and store the unit with the cutter bar in the horizontal working position. You will get longer service life out of your mower by storing it inside and repainting scratched or rusted components.

With a little practice and experience you should become very good at operating your Land Pride Disc Mower.

Section 3: Adjustments

Belt Tension Adjustment

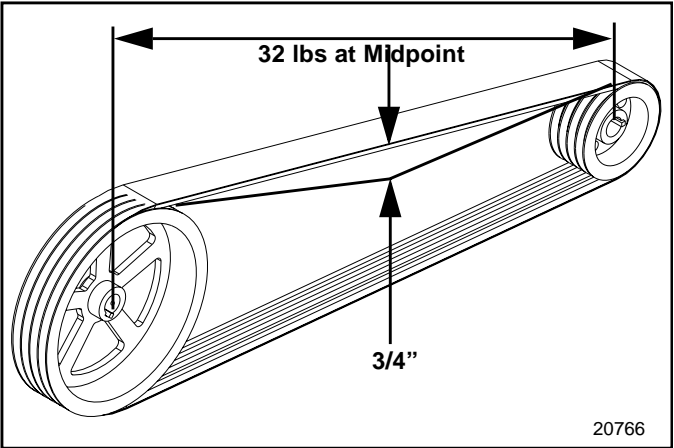
Belt must be properly tensioned at all times to avoid excessive flopping and slipping. A loose belt will also cause poor cutting and premature wear.

Check tightness of belt regularly, especially when working the first few hours.

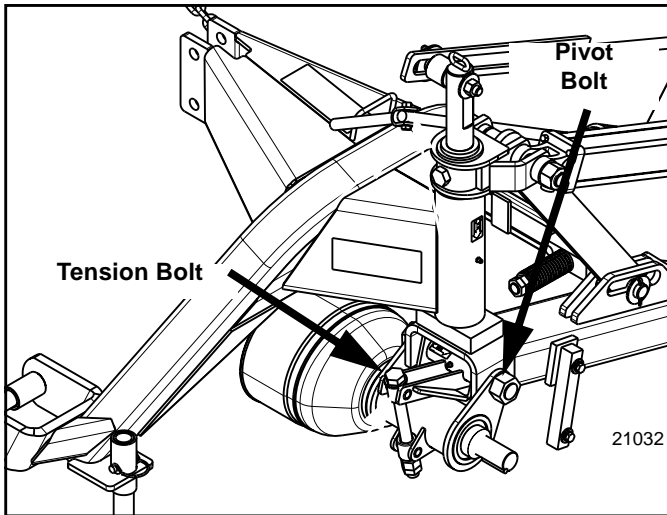
Always retighten or check belt after 4-8 hours of operation.

Refer to Figure 3-1:

4. Loosen main pivot bolt.
5. Tighten nut on belt tension bolt until you have a 3/4" deflection using approximately 32 lbs. of force at midpoint between pulleys. Tighten main pivot bolt. Refer to Figure 3-2.



Belt Deflection
Figure 3-2



Belt Tension Adjustment
Figure 3-1

Cutting Height

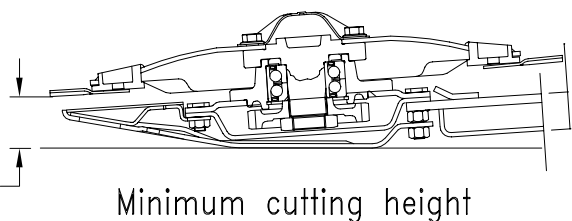
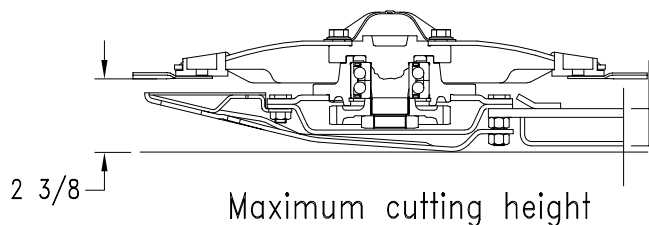
Refer to Figure 3-4:

Cutting height can be adjusted with the upper 3-point hitch link.

Maximum cutting height of 2 3/8" is achieved when the discs are parallel to the ground. Adjustment of cutting height is achieved by altering the cutter bar tilt angle.

This is done by varying the upper 3-point hitch link length until desired cutting height is achieved. Shorten the upper 3-point hitch link to lower and lengthen to raise.

To minimize blade and disc wear, improve grass regrowth and get maximum nutritive value from the crop, minimum cutting height should never be adjusted less than 1 1/4".



Cutting Height
Figure 3-4

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General Maintenance

Proper servicing and adjustment is the key to long life of any implement. With careful and systematic inspection, you can avoid costly maintenance, time and repair.

DANGER

Before servicing this implement, turn off tractor engine, remove ignition key and disconnect PTO driveline.

Each new mower should be checked after the first 10 hours of work. All screws and bolt torques should be routinely checked.

At beginning of season:

6. Check and/or change oil; lubricate or grease all points. See *Lubrication* in this section.
7. Check blade wear and condition of their fasteners, see “**Servicing Blades**”, page 21.
8. Check wear on guards and curtain.
9. Inspect belts, see “**Belt Tension Adjustment**”, page 20.
10. Check all screws and bolts to be sure they are tight.

Servicing Blades

Cutting quality as well as safe operation depend on regular inspection and care given to the knives.

WARNING

To avoid personal injury when blades and/or carrier are being serviced, always block mower up to prevent it from falling.

Check blades for cracks and wear and blade bolts for tightness daily. Blades should be replaced when they are worn excessively, bent, nicked, deformed, or out of balance.

Blades are sharpened on both edges so that they may be turned over to extend their cutting life. Always turn over both blades on a cutterplate at the same time.

NOTE: Blade bolts should be tightened to 55 ft-lb torque.

NOTE: Always replace damaged blades. Never straighten a bent blade. Never replace one knife only per disc. Always replace both of them to avoid creating an out-of-balance force.

CAUTION

Replace with Land Pride blades only. Substitute blades may not meet specifications and may fail in a hazardous manner that could cause injury.

CAUTION

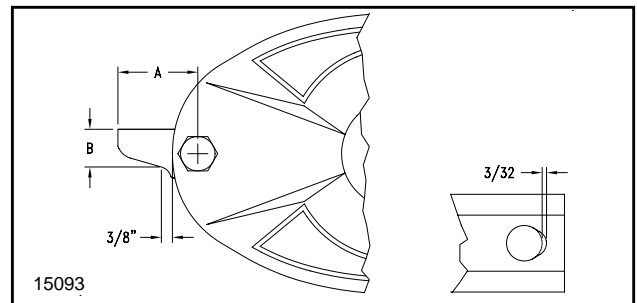
When changing blades, always replace blade bolt & blade nut together at the same time. Worn or damaged blade bolts or nuts could fail in a hazardous manner that could cause injury.

Blade Replacement

Refer to Figure 4-1:

NOTE: Always replace blades on cutterplates in pairs.

1. New blades are 1.85” wide. Blades should be replaced when they are worn to about 1 5/16” (B) wide at a distance of 3/8” from the disc. Length (A) of the blade should be greater than 2 1/2”.
2. Replace blades if hole for securing bolt has become oval by 3/32” more than diameter of original hole.



Blade Wear
Figure 4-1

Blade Fastener Replacement

NOTE: Always replace blade bolts and nuts when they have been removed 5 times.

1. Replace fasteners when a visible deformation is found.
 2. Replace bolts when wear on bolt head reaches contact area of blade.
 3. Replace bolts when flat sides at bolt flanges are excessively worn or missing altogether.
- Refer to Figure 4-2:
4. Replace bolts when diameter (D) of bolt shoulder is less than 5/8”.
 5. Replace nuts when height (H) of nut is less than half of original height of 3/8”.

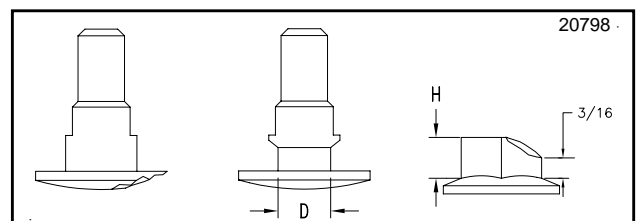


Figure 4-2

Section 4: Maintenance and Lubrication

Belleville Washer Replacement

The Belleville washers on break-away bar may become flat and weak over use and should be replaced when cutter bar continues to break-away after resetting. See “**Safety Break-Away**” on page 18 for additional information on the Spring Washers.

Blade & Belleville Washer Pt. No's.

Description	Part No.
Cutter Blade Clockwise	890-769C
Cutter Blade Counter Clockwise	890-770C
M12 Blade Bolt	802-708C
M12 Blade Hex Flange Nut	803-311C
Break-Away Belleville Washers	804-186C

Cutter Bar Timing Adjustment

For removal of one or more disc shaft assemblies.

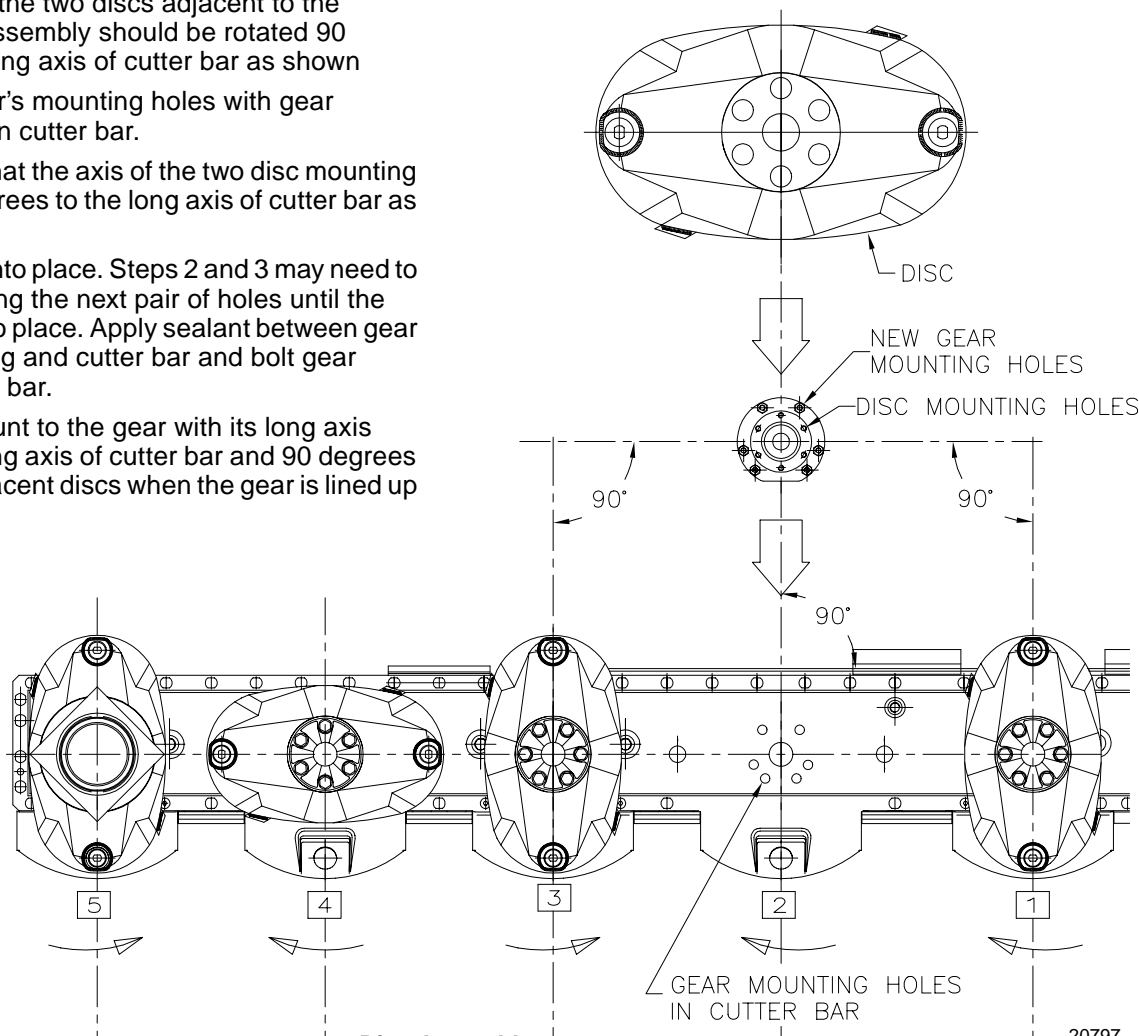
Refer to Figure 4-3:

6. The long axis of the two discs adjacent to the replaced shaft assembly should be rotated 90 degrees to the long axis of cutter bar as shown
7. Line up new gear's mounting holes with gear mounting holes in cutter bar.
8. Rotate gear so that the axis of the two disc mounting holes are 90 degrees to the long axis of cutter bar as shown.
9. Try sliding gear into place. Steps 2 and 3 may need to be repeated, using the next pair of holes until the gear will slide into place. Apply sealant between gear assembly housing and cutter bar and bolt gear housing to cutter bar.
10. The disc will mount to the gear with its long axis parallel to the long axis of cutter bar and 90 degrees to the axis of adjacent discs when the gear is lined up correctly.

Storage

It is good practice to clean off any dirt or grease that may have accumulated on mower and moving parts at end of working season or when mower will not be used for a long time.

1. Clean Disc Mower as necessary.
2. Check blades and blade fasteners for wear and replace if necessary, see “**Servicing Blades**”, Page 21.
3. Inspect mower for loose, damaged or worn parts and adjust or replace as needed.
4. Lubricate as noted in “**Section 4: Maintenance and Lubrication**” on page 21.
5. Release tension on drive belt.
6. Move stroke control to disconnect position.
7. Store cutter bar in horizontal (operating) position.
8. Store Disc Mower inside if possible for longer Disc Mower life.
9. Repaint parts where paint is worn or scratched to prevent rust.







**Disc Assembly
Figure 4-3**

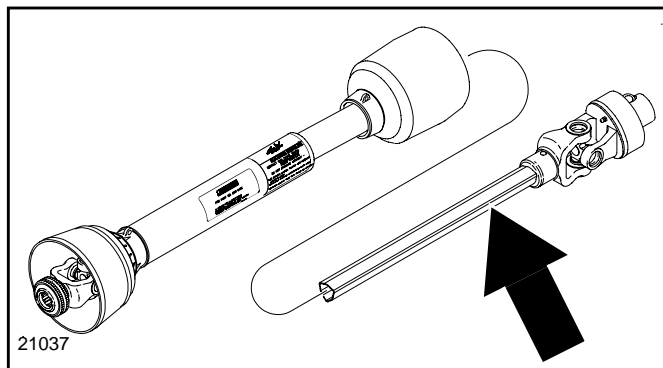
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Section 4: Maintenance and Lubrication

Lubrication

Lubrication Legend	 Multi-purpose spray tube	 Multi-purpose grease lube	 Multi-purpose oil lube	 Intervals in hours at which lubrication is required
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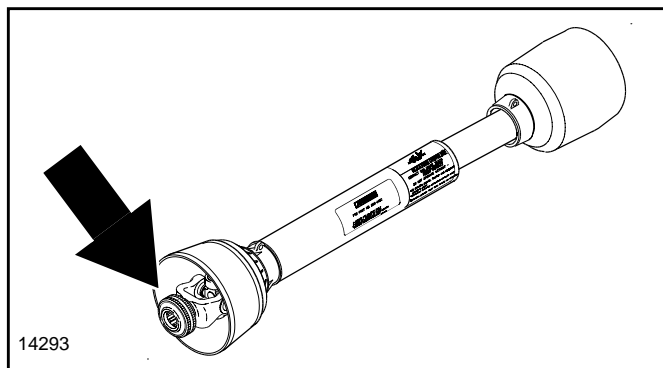




	
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Driveline Inner Tube

Type of Lubrication: Multi-purpose Grease

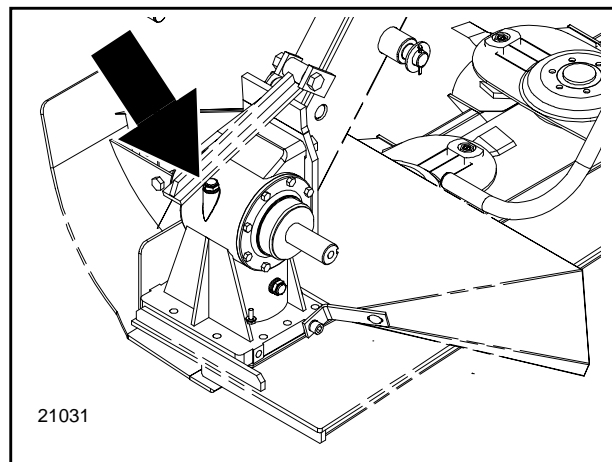
Quantity = Clean & coat inner tube of driveline with a light film of grease and then reassemble.





	
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Driveline U-Joints

Type of Lubrication: Multi-purpose Grease



	
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Gearbox

Check oil level in gearbox by removing oil fill plug and checking dipstick. If level is below line on dipstick, add oil.

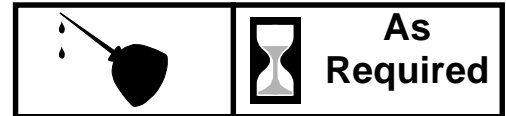
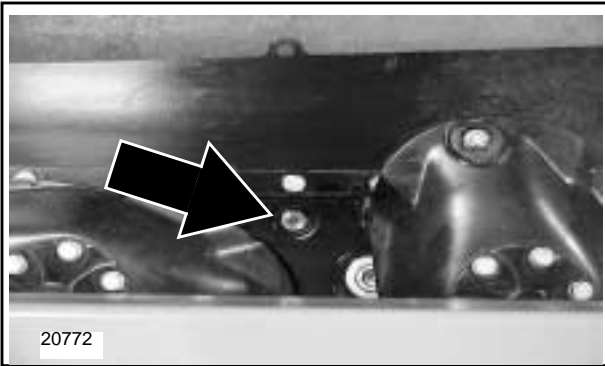
NOTE: Do not overfill. Mower should be level when checking oil.

Type of Lubrication: SAE 90 GL4 (EP) gear lube

Quantity = fill until level with line on dipstick

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Section 4: Maintenance and Lubrication



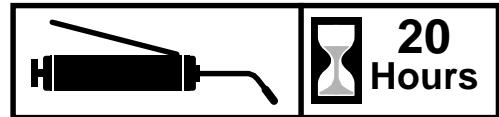
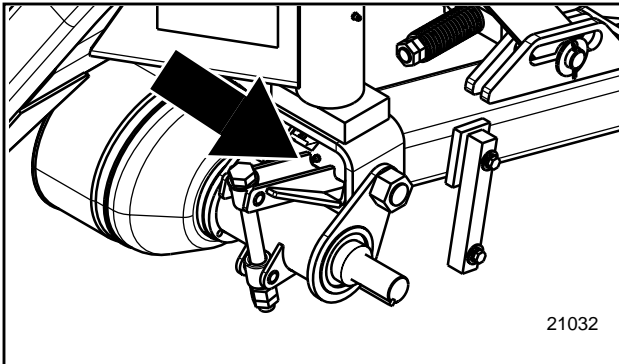
Cutter Bar

Check oil level in cutter bar by removing filler level plug with cutter bar in transport position. (Fill/Level plug is located between first and second discs on DM3705 and between second and third discs on DM3706 and DM3707.) Add oil if level is low.

IMPORTANT: The recommended oil quantity should not be exceeded. Results of overfilling will be overheating with potential for severe damage to cutterbar. Mower should be level and cutter bar vertical when checking oil. Be sure to let cutting bar set in vertical position for a few minutes before checking to allow time for oil to flow to bottom of bar.

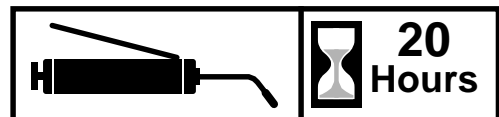
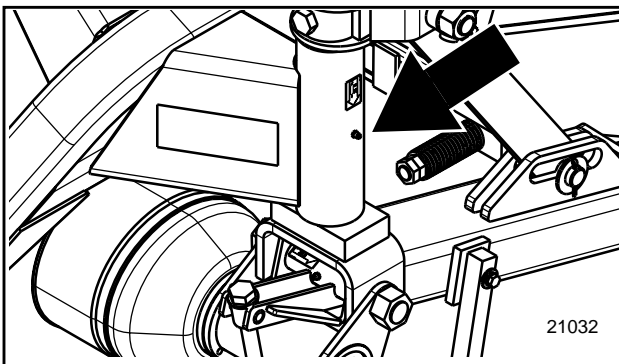
Type of Lubrication: SAE 90 GL4 (EP) gear lube

Quantity = Fill until level with filler level plug hole. (See important note above.)



Frame Pivot Point

Type of Lubrication: Multi-purpose Grease



Hitch Pivot Point

Type of Lubrication: Multi-purpose Grease



37 Series Disc Mowers

	DM3705	DM3706	DM3707
Number of Discs	5	6	7
Cutting Width	6' 9"	8' 0"	9' 4"
Transport Width	74"	74"	74"
Cutter Bar Oil capacity	5.92 pints	6.55 pints	7.4 pints
Weight (approximate)	1210 lbs.	1269 lbs.	1329 lbs.
Blade Overlap	3"		
Recommended Tractor PTO HP Range	35 - 80 HP		
PTO speed	540 RPM		
Disc tip speed	15,764 FPM		
Gearbox Ratio	2.06		
Gearbox Oil capacity	1.48 pints		



DM37 Series Disc Mowers

Features	Benefits
Cutter bar 81", 96" and 112" widths	5, 6 and 7 Disc models available to meet a wide range of customer needs.
Common oil chamber	Gears splash oil from gear to gear.
Warranty	2 Years Parts & Labor on cutter bar and gearbox. One year Parts & Labor on hydraulic cylinder, hydraulic hoses, and seals are considered wear items. Cutting blades and belts are considered wear items.
Maximum cutting angle (Angle cutter bar is to tractor axle)	35 Degrees down, and 35 degrees up for cutting along embankments.
Narrow transport	74" - usually not much wider than tire distance, safer in transport.
Hook-ups	Three types of hook-ups. Cat. 2, Cat. 2 Quick-Hitch, and Cat. 3.
Rock guards	Replaceable.
Hydraulic cutterbar lift	Quickly raise for obstructions.
Cutterbar drive	Gear drive for high efficiency and long life.
1 1/4" Minimum cutting height	Run skid shoes on ground to mow very short.
Power drive belt	Stronger than multiple belt system.
2 hardened blades per disc, reversible	Reversible blades give double life, hardened for longevity against debris.
3" Blade overlap	Eliminates skipping for a cleaner cut.
High blade tip speed	15,764 fpm, offers a nice clean cut.
Storage stand	Aids in storage and hooking to tractor.
Skid shoes	Easily replaceable when worn out.

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Section 7: Troubleshooting



Problem	Cause	Solution
Not cutting clean	Dull Blades.	Replace blades.
	Mower not level.	Adjust machine.
	Ground speed too fast.	Reduce ground speed.
	Blades locked back.	Free blades.
	Blade on wrong for rotation of disc	Change blade pairs for correct rotation blades
Streaking conditions in swath	Conditions too wet for cutting.	Allow grass to dry before cutting. Slow ground speed of tractor but keep engine running at full PTO rpm.
	Dull blades.	Sharpen or replace blades.
	Wet mud build-up between skid shoes.	Clean area between skids. Raise cutting height.
	Blade on wrong for rotation of disc	Change blade pairs for correct rotation blades
Gearbox noisy	Rough gears.	Run in or gear failure.
	Worn bearing.	Replace bearing.
Gearbox leaking	Damaged oil seal.	Replace seal.
	Bent shaft.	Replace oil seal and shaft.
	Oil seal not sealing in housing.	Replace seal or use a sealant on OD of seal.
	Oil level too high.	Drain oil to proper level.
	Gasket damaged.	Replace gasket.
	Bolts loose.	Tighten bolts.
Uneven stubble	Too much tilt on cutter bar.	Reduce tilt.
	Low PTO speed.	Increase engine speed to run PTO at 540 rpm.
	Blades not installed correctly.	Make sure that arrow on knife upper face is pointing in the direction of rotation of the disc.
	Low disc speed.	Check belt for correct tension.
	Dull or broken blades.	Replace blades.
	3-point arms not level causing float mechanism to not function properly	Level three point arms
Stubble too long	Incorrect angle on cutter bar.	Change cutter bar angle using tractor top link.
	Insufficient cutter bar down pressure.	Adjust compensating spring tension.
	3-point arms not level causing float mechanism to not function properly	Level three point arms
Soil built up in front of cutter bar	Very wet conditions	Adjust main frame height by shortening safety chain as necessary.
	Too much cutter bar down pressure	Adjust compensating spring tension.
	3-point arms not level causing float mechanism to not function properly	Level three point arms
Machine breaking back too easily	Insufficient tension on break-away spring washers.	Tighten break-away spring.
	3-point arms not level causing float mechanism to not function properly	Level three point arms
	Belleville washers flattened	Replace with new Belleville washer part no.



Torque Values Chart for Common Bolt Sizes													
Bolt Size (Inches) in-tip ¹	Bolt Head Identification						Bolt Size (Metric) mm x	Bolt Head Identification					
	Grade 2		Grade 5		Grade 8			Class 5.8		Class 8.8		Class 10.9	
	N · m	ft-lb ³	N · m	ft-lb	N · m	ft-lb	N · m	ft-lb	N · m	ft-lb	N · m	ft-lb	
1/4" - 20	7.4	5.6	11	8	16	12	M 5 X 0.8	4	3	6	5	9	7
1/4" - 28	8.5	6	13	10	18	14	M 6 X 1	7	5	11	8	15	11
5/16" - 18	15	11	24	17	33	25	M 8 X 1.25	17	12	26	19	36	27
5/16" - 24	17	13	26	19	37	27	M 8 X 1	18	13	28	21	39	29
3/8" - 16	27	20	42	31	59	44	M10 X 1.5	33	24	52	39	72	53
3/8" - 24	31	22	47	35	67	49	M10 X 0.75	39	29	61	45	85	62
7/16" - 14	43	32	67	49	95	70	M12 X 1.75	58	42	91	67	125	93
7/16" - 20	49	36	75	55	105	78	M12 X 1.5	60	44	95	70	130	97
1/2" - 13	66	49	105	76	145	105	M12 X 1	90	66	105	77	145	105
1/2" - 20	75	55	115	85	165	120	M14 X 2	92	68	145	105	200	150
9/16" - 12	95	70	150	110	210	155	M14 X 1.5	99	73	155	115	215	160
9/16" - 18	105	79	165	120	235	170	M16 X 2	145	105	225	165	315	230
5/8" - 11	130	97	205	150	285	210	M16 X 1.5	155	115	240	180	335	245
5/8" - 18	150	110	230	170	325	240	M18 X 2.5	195	145	310	230	405	300
3/4" - 10	235	170	360	265	510	375	M18 X 1.5	220	165	350	260	485	355
3/4" - 16	260	190	405	295	570	420	M20 X 2.5	280	205	440	325	610	450
7/8" - 9	225	165	585	430	820	605	M20 X 1.5	310	230	650	480	900	665
7/8" - 14	250	185	640	475	905	670	M24 X 3	480	355	760	560	1050	780
1" - 8	340	250	875	645	1230	910	M24 X 2	525	390	830	610	1150	845
1" - 12	370	275	955	705	1350	995	M30 X 3.5	960	705	1510	1120	2100	1550
1-1/8" - 7	480	355	1080	795	1750	1290	M30 X 2	1060	785	1680	1240	2320	1710
1 1/8" - 12	540	395	1210	890	1960	1440	M36 X 3.5	1730	1270	2650	1950	3660	2700
1 1/4" - 7	680	500	1520	1120	2460	1820	M36 X 2	1880	1380	2960	2190	4100	3220
1 1/4" - 12	750	555	1680	1240	2730	2010							
1 3/8" - 6	890	655	1990	1470	3230	2380							
1 3/8" - 12	1010	745	2270	1670	3680	2710							
1 1/2" - 6	1180	870	2640	1950	4290	3160							
1 1/2" - 12	1330	980	2970	2190	4820	3560							

¹ in-tpi = nominal thread dia. in inches-threads per inch
² N · m = newton-meters
³ ft-lb= foot pounds
⁴ mm x pitch = nominal thread dia. in millimeters x thread pitch

Torque tolerance + 0%, -15% of torquing values. Unless otherwise specified use torque values listed above.

Warranty

Land Pride warrants to the original purchaser that this Land Pride product will be free from defects in material and workmanship beginning on the date of purchase by the end user according to the following schedule when used as intended and under normal service and conditions for personal use.

Overall Unit: 2 Year Parts and Labor

Driveline: 1 Year Parts and Labor

Blades and belt: Considered wear items

This Warranty is limited to the replacement of any defective part by Land Pride and the installation by the dealer of any such replacement part, and does not cover common wear items such as blades, belts, tines, etc. Land Pride reserves the right to inspect any equipment or parts which are claimed to have been defective in material or workmanship.

This Warranty does not apply to any part or product which in Land Pride's judgment shall have been misused or damaged by accident or lack of normal maintenance or care, or which has been repaired or altered in a way which adversely affects its performance or reliability, or which has been used for a purpose for which the product is not designed. Misuse also specifically includes failure to properly maintain oil levels, grease points, and driveline shafts.

Claims under this Warranty should be made to the dealer which originally sold the product and all warranty adjustments must be made through an authorized Land Pride dealer. Land Pride reserves the right to make changes in materials or design of the product at any time without notice.

This Warranty shall not be interpreted to render Land Pride liable for damages of any kind, direct, consequential, or contingent to property. Furthermore, Land Pride shall not be liable for damages resulting from any cause beyond its reasonable control. This Warranty does not extend to loss of crops, any expense or loss for labor, supplies, rental machinery or for any other reason.

No other warranty of any kind whatsoever, express or implied, is made with respect to this sale; and all implied warranties of merchantability and fitness for a particular purpose which exceed the obligations set forth in this written warranty are hereby disclaimed and excluded from this sale.

This Warranty is not valid unless registered with Land Pride within 30 days from the date of purchase by the end user.



Corporate Office: P.O. Box 5060
Salina, Kansas 67402-5060 USA
www.landpride.com
